

LAMPIRAN A

LISTING PROGRAM APLIKASI MUSIK KOMPUTER

```
DECLARE SUB IsiHelp4 ()
DECLARE SUB sisipBirama ()
DECLARE SUB cetak ()
DECLARE SUB biramaku ()
DECLARE SUB tampilKei ()
DECLARE SUB nadake ()
DECLARE SUB salahbuka ()
DECLARE SUB FileLagu ()
DECLARE SUB IsiHelp3 ()
DECLARE SUB IsiHelp2 ()
DECLARE SUB IsiHelp1 ()
DECLARE SUB bantu ()
DECLARE SUB kunciOn ()
DECLARE SUB KunciOff ()
DECLARE SUB menubawah ()
DECLARE SUB nilaiAwal ()
DECLARE SUB kosong ()
DECLARE SUB geserKiri ()
DECLARE SUB berix ()
DECLARE SUB geser ()
DECLARE SUB Tampil ()
DECLARE SUB layar ()
DECLARE SUB cari ()
DECLARE SUB buka ()
DECLARE SUB konversi ()
DECLARE SUB kotak (xx1!, yy1!, x2!, y2!)
DECLARE SUB menu ()
DECLARE SUB dec ()
DECLARE SUB tekan ()
DECLARE SUB Inc ()
DECLARE SUB dengar ()
DECLARE SUB nadaku ()
DECLARE SUB simpan ()
DECLARE SUB posisi ()
```

```
CONST kolom = 70
CONST x1 = 5
CONST y1 = 2
CONST F1 = 1
CONST F2 = 2
CONST F3 = 3
```

```
CONST F4 = 4
CONST F5 = 5
CONST F6 = 6
CONST F9 = 9
CONST F10 = 10
CONST NAIK = 11
CONST TURUN = 14
CONST kiri = 12
CONST KANAN = 13
CONST maxkar = kolom * 20
CONST nada = 500
```

```
DIM SHARED huruf$(maxkar)
DIM SHARED musik$(nada)
DIM SHARED lagu$(nada)
DIM SHARED tempo$, file$, Fl$, x$, birama$, brms$
DIM SHARED i, x, y, Brs, akhir, jk, MaxRow, Esc, ND, B
```

mulai:

```
GOSUB Kunci
CALL KunciOff
COLOR 15, 1
CLS
Esc = 0
GOSUB Kunci
CALL kunciOn
```

CALL kosong

```
CALL nilaiAwal
CALL menu
CALL menubawah
CALL layar
```

Awal:

```
ON ERROR GOTO habis
GOSUB Kunci
IF i < akhir THEN CALL posisi
CALL tekan
CALL nadake
GOTO Ulang
```

salah:

```
GOTO Awal
```

Ulang:

```
IF Esc = 0 THEN GOTO Awal
```

habis:

```
CALL KunciOff
```

```
COLOR 7, 0
CLS
END
```

Kunci:

```
ON KEY(F1) GOSUB helpkan
ON KEY(F2) GOSUB simpankan
ON KEY(F3) GOSUB Bukakan
ON KEY(F4) GOSUB tempokan
ON KEY(F5) GOSUB dengarkan
ON KEY(F6) GOSUB biramakan
ON KEY(F9) GOSUB barukan
ON KEY(F10) GOSUB keluar
ON KEY(NAIK) GOSUB PNAIK
ON KEY(TURUN) GOSUB PTURUN
ON KEY(kiri) GOSUB PKIRI
ON KEY(KANAN) GOSUB PKANAN
RETURN
```

Bukakan:

```
Fl$ = file$
CALL FileLagu
```

```
COLOR 15, 1
file$ = " "
LOCATE 23, 23: PRINT " Membuka File:
LOCATE 23, 37: INPUT " ", file$
```

```
IF LEN(file$) <= 2 THEN
  CALL salahbuka
ELSE
  VIEW PRINT 11 TO 20
  COLOR 15, 1: CLS
  VIEW PRINT 1 TO 25
  CALL buka
  CALL menubawah
END IF
i = i - 1
CALL posisi
RETURN
```

simpankan:

```
IF i < kolom + 1 THEN RETURN
COLOR 15, 1
LOCATE 23, 21: PRINT " Menyimpan File: "
```

```
LOCATE 23, 37: INPUT " ", file$
IF LEN(file$) < 1 THEN
    file$ = "NoName.nd"
    CALL menubawah
    CALL posisi
    RETURN
END IF
CALL menubawah
CALL simpan
i = i - 1
CALL posisi
RETURN
```

barukan:

```
CALL kosong
CALL nilaiAwal
CALL menubawah
CALL layar
CALL biramaku
i = i - 1
CALL posisi
RETURN
```

helpkan:

```
CALL bantu
CALL Tampil
CALL posisi
RETURN
```

keluar:

```
Esc = 1
RETURN
```

dengarkan:

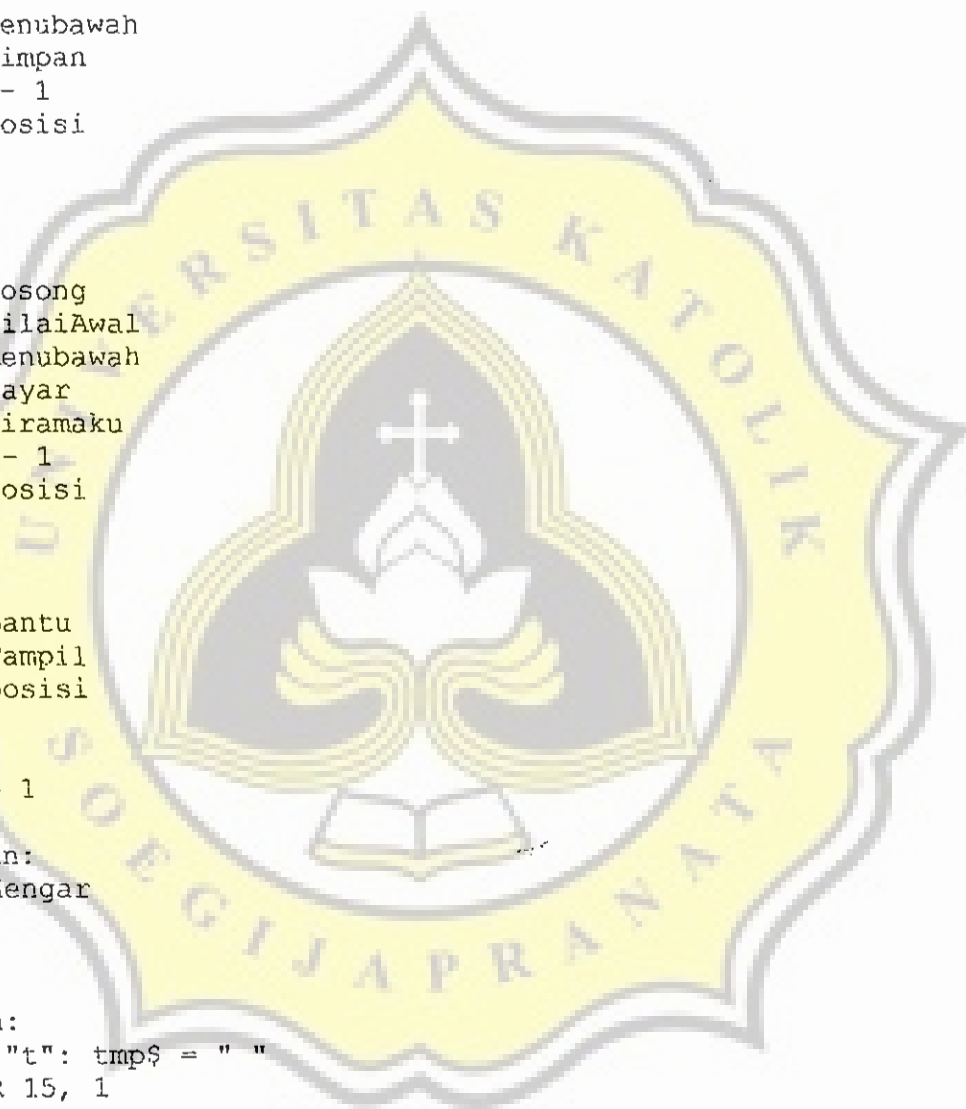
```
CALL dengar
RETURN
```

tempokan:

```
t$ = "t": tmp$ = " "
COLOR 15, 1
LOCATE 23, 10: PRINT " "
LOCATE 23, 10: INPUT " ", tmp$
```

```
IF VAL(RTRIM$(tmp$)) < 32 THEN tmp$ = "32"
IF VAL(RTRIM$(tmp$)) > 255 THEN tmp$ = "255"
```

```
COLOR 15, 1
```



```

LOCATE 23, 11: PRINT " "
LOCATE 23, 11: PRINT tmp$
tempo$ = RTRIM$(t$) + RTRIM$(tmp$)
FOR j = 10 TO 10 + LEN(tempo$)
    huruf$(j) = MID$(tempo$, j - 9, 1)
NEXT
CALL menubawah
CALL posisi
RETURN

```

biramakan:

```

    brm$ = " "
    COLOR 15, 1
    LOCATE 23, 70: PRINT " "
    LOCATE 23, 70: INPUT " ", brm$

    SELECT CASE brm$
        CASE "4/4"
            birama$ = "ML"
            B = 4
        CASE "3/4"
            birama$ = "MS"
            B = 3
        CASE ELSE
            birama$ = "MS"
            brm$ = "3/4"
            B = 3
    END SELECT
    COLOR 15, 1
    LOCATE 23, 71: PRINT " "
    LOCATE 23, 71: PRINT brm$

    birama$ = RTRIM$(birama$)
    FOR j = 0 TO LEN(birama$)
        huruf$(j) = MID$(birama$, j + 1, 1)
    NEXT
    CALL menubawah
    CALL biramaku
    i = i - 1
    CALL posisi
RETURN

```

PNAIK:

```

    IF i > (kolom * 2) THEN i = i - kolom
    CALL posisi
RETURN

```

PTURUN:

```
j = i
i = i + kolom
CALL cari
IF i < akhir THEN
  CALL posisi
ELSE
  i = j
END IF
```

RETURN

PKIRI:

```
IF i > (kolom * 1) THEN i = i - 1
CALL posisi
```

RETURN

PKANAN:

```
j = i
i = i + 1
CALL cari
IF i < akhir THEN
  CALL posisi
ELSE
  i = j
END IF
```

RETURN

SUB bantu

```
Tombol = 0
h = 1
lalu = 0
CALL KunciOff
COLOR 15, 2
CALL kotak(3, 40, 21, 79)
CALL IsiHelp1
DO
```

```
  SELECT CASE INKEY$
    CASE CHR$(120), CHR$(88)
      Tombol = 1
    CASE CHR$(13)
      h = h + 1
    CASE CHR$(27)
      h = h - 1
  END SELECT
```

```
IF h <= 1 THEN h = 1
```

```

IF h >= 4 THEN h = 4

SELECT CASE h
CASE 1
    IF lalu <> h THEN CALL IsiHelp1
    lalu = h
CASE 2
    IF lalu <> h THEN CALL IsiHelp2
    lalu = h
CASE 3
    IF lalu <> h THEN CALL IsiHelp4
    lalu = h
CASE 4
    IF lalu <> h THEN CALL IsiHelp3
    lalu = h
END SELECT
LOOP UNTIL Tombol = 1
CALL kunciOn
END SUB

SUB berix
IF i >= akhir THEN
    IF huruf$(i) = "*" THEN huruf$(i) = "~"
    huruf$(i + 1) = "*"
    akhir = akhir + 1
END IF
END SUB

SUB biramaku
CALL cari

FOR i = kolom + 1 TO akhir
    IF huruf$(i) = "|" THEN huruf$(i) = "~"
NEXT
sisip = 1
tandaB = 0
i = kolom
DO
    i = i + 1
    CALL nadake
    sisip = INT(ND / B)
    IF huruf$(i) = "~" THEN
        IF (ND MOD B) = 0 AND tandaB < sisip THEN
            CALL sisipBirama
            tandaB = 1 + tandaB
        END IF
    END IF
LOOP UNTIL i >= akhir
END SUB

```

```

        CALL cari
        i = i + 2
    END IF
END IF
LOOP UNTIL i > akhir - 1
i = kolom
DO
    i = i + 1
    IF huruf$(i) = "~" AND huruf$(i + 1) = "~" THEN
        CALL geserKiri
        i = i - 1
        CALL cari
    END IF
LOOP UNTIL i > akhir - 1
CALL layar
CALL Tampil
CALL posisi
END SUB

SUB buka
CALL menu
CALL layar
j = 0
n = 0
i = kolom + 1

OPEN file$ FOR INPUT AS #1
CALL kosong
DO
    n = j
    INPUT #1, huruf$(j)
    j = j + 1
LOOP UNTIL RTRIM$(huruf$(n)) = "*" OR j >= maxkar
CLOSE
tempo$ = huruf$(10) + huruf$(11) + huruf$(12) + huruf$(13)
birama$ = huruf$(0) + huruf$(1)

SELECT CASE birama$
CASE "ML"
    brn$ = "4/4"
    B = 4
CASE "MS"
    brn$ = "3/4"
    B = 3
CASE ELSE
    brn$ = "3/4"

```



```

        birama$ = "MS"
        B = 3
    END SELECT

    akhir = j
    huruf$(akhir) = "*"
    CALL Tampil
    CALL menu
    CALL menubawah
END SUB

SUB cari
    j = 0
    DO
        j = j + 1
    LOOP UNTIL huruf$(j) = "*" OR j = maxkar - 1
    akhir = j
    IF huruf$(akhir - 1) <> "~" THEN
        huruf$(akhir) = "~": huruf$(akhir + 1) = "*"
        akhir = akhir + 1
    END IF
    IF akhir > maxkar - 1 THEN akhir = maxkar - 1
END SUB

SUB cetak
    IF huruf$(i) = "~" OR huruf$(i) = "*" THEN
        PRINT " "
    ELSE
        IF huruf$(i) = "|" THEN COLOR 4, 15
        PRINT huruf$(i)
        COLOR 0, 15
    END IF
END SUB

SUB dec
    i = i - 1
    IF i <= 0 THEN i = 0
    akhir = akhir - 1
    IF akhir <= 0 THEN akhir = 0
END SUB

SUB dengar
    musik$(0) = RTRIM$(birama$) + " " + RTRIM$(tempo$)

```

```
CALL nadaku
CALL konversi
```

```
PLAY musik$(0)
```

```
FOR j = 1 TO jk
  PLAY lagu$(j)
NEXT
END SUB
```

```
SUB FileLagu
  COLOR 0, 3
  LOCATE 11, 1:
  PRINT "===== "
  LOCATE 20, 1:
  PRINT "===== "

  VIEW PRINT 12 TO 19
  COLOR 0, 3
  CLS
  FILES "*.nd"
  PRINT
  PRINT " Tekan ENTER untuk kembali layar "
  VIEW PRINT 1 TO 25
END SUB
SUB geser
  DIM h$(maxkar)
  CALL cari
  IF akhir < 0 THEN akhir = 0

  FOR k = 0 TO akhir
    h$(k) = huruf$(k)
  NEXT

  k = i
  huruf$(i) = "~"
  FOR i = k TO akhir
    huruf$(i + 1) = h$(i)
  NEXT
  CALL cari
  FOR i = k - 1 TO akhir - 1
    CALL posisi
    CALL cetak
  NEXT
  CALL posisi
  i = k
```

```
CALL cari
END SUB
```

```
SUB geserKiri
DIM h$(maxkar)
CALL cari
IF akhir < 0 THEN akhir = :
```

```
FOR k = 0 TO akhir
  h$(k) = huruf$(k)
NEXT
```

```
IF i <= kolom + 1 THEN
  i = kolom + 1
  GOSUB selesai
END IF
```

```
k = i
```

```
huruf$(akhir) = " "
FOR i = k TO akhir
  huruf$(i) = h$(i + 1)
NEXT
```

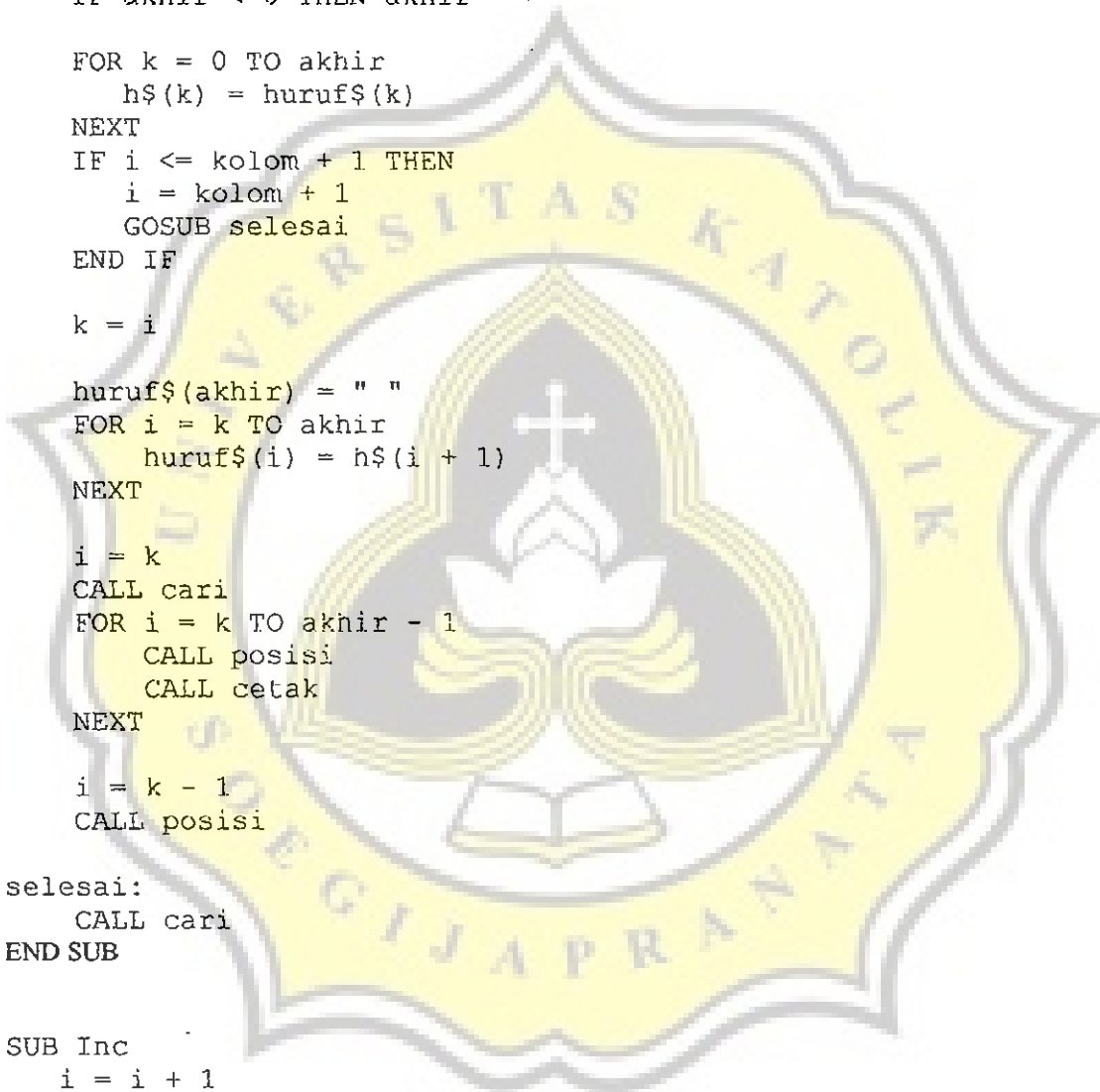
```
i = k
CALL cari
FOR i = k TO akhir - 1
  CALL posisi
  CALL cetak
NEXT
```

```
i = k - 1
CALL posisi
```

```
selesai:
CALL cari
END SUB
```

```
SUB Inc
  i = i + 1
END SUB
```

```
SUB IsiHelp1
  CALL kotak(3, 40, 21, 79)
```



```

LOCATE 4, 41:PRINT " PROGRAM BANTU NADA Version 1.0"
LOCATE 5, 41:PRINT " ====="
LOCATE 6, 41:PRINT " Copyright (C) 2000,By Dani Elekt'94"

LOCATE 10, 41: PRINT " F1 - Untuk Help (Keterangan) "
LOCATE 9, 41: PRINT " ~~~~~ "
LOCATE 8, 41: PRINT " Tombol yang diperlukan : "
LOCATE 11, 41: PRINT " F2 - Untuk menyimpan lagu ke File"
LOCATE 12, 41: PRINT "     contoh : burung.nd "
LOCATE 13, 41: PRINT "     exstension .nd harus selalu "
LOCATE 14, 41: PRINT "     ditulis / disertakan "
LOCATE 15, 41: PRINT " F3 - Untuk membuka File lagu "
LOCATE 16, 41: PRINT "     contoh : burung.nd "
LOCATE 17, 41: PRINT "     exstension .nd harus selalu "
LOCATE 18, 41: PRINT "     ditulis / disertakan "
LOCATE 19, 41: PRINT " ===== "
LOCATE 20, 41: PRINT " [X]-Close [ENTER]-Next [ESC]-Back "
END SUB

SUB IsiHelp2
CALL kotak(3, 40, 21, 79)
LOCATE 4, 41: PRINT " F4 - Mengatur tempo lagu "
LOCATE 5, 41: PRINT "     40 : Larghissimo (sangat lambat)"
LOCATE 6, 41: PRINT "     50 : Largo (sangat lambat)"
LOCATE 7, 41: PRINT "     60 : Lento (Lambat)"
LOCATE 8, 41: PRINT "     70 : Adagio (lambat)"
LOCATE 9, 41: PRINT "     100: Adante (lambat)"
LOCATE 10, 41: PRINT "     120: Moderato (sedang)"
LOCATE 11, 41: PRINT "     150: Allegro (cepat dan hidup)"
LOCATE 12, 41: PRINT "     200: Presto (sangat cepat)"
LOCATE 13, 41: PRINT "     250: Prestissimo(sangat cepat)"
LOCATE 14, 41: PRINT " F5 - Mendengarkan lagu yang tertu-"
LOCATE 15, 41: PRINT "     iis di layar monitor "
LOCATE 16, 41: PRINT " F6 - Mengatur Birama"
LOCATE 17, 41: PRINT "     4/4 : memainkan musik legato"
LOCATE 18, 41: PRINT "     3/4 : memainkan musik staccato"
LOCATE 19, 41: PRINT " ===== "
LOCATE 20, 41: PRINT " [X]-Close [ENTER]-Next [ESC]-Back "
END SUB

SUB IsiHelp3
CALL kotak(3, 40, 21, 79)
LOCATE 4, 41: PRINT "TINGGI : 1t, 2t, 3t, .. 7t"
LOCATE 5, 41: PRINT " KRES   : /1, /2, /3, .. /6t, /7t"
LOCATE 6, 41: PRINT " 1/8    : 1-2, 3-7r, 2t-1, ..-6r"

```

```

LOCATE 7, 41: PRINT " NOL      : 0, 0-2, 0-1r, 0-1t"
LOCATE 8, 41: PRINT " TITIK   : ."
LOCATE 10, 41: PRINT "Contoh penulisan :           "
LOCATE 11, 41: PRINT "  1 2 3-4 ° 2t . 3r ° /3 0-2 . ° "
LOCATE 12, 41: PRINT "Tiap nada dipisah dengan tanda spa"
LOCATE 13, 41: PRINT "si."
LOCATE 19, 41: PRINT " ===== "
LOCATE 20, 41: PRINT " [X]-Close [ENTER]-Next [ESC]-Back "
END SUB

```

```

SUB IsiHelp4

```

```

CALL kotak(3, 40, 21, 79)

```

```

LOCATE 4, 41: PRINT " F9 - Membersihkan layar monitor &"
LOCATE 5, 41: PRINT "      membuat file lagu yang baru"
LOCATE 6, 41: PRINT " F10- Keluar dari program"

```

```

LOCATE 7, 41: PRINT " Tab - menggeser 1 huruf ke kanan"
LOCATE 8, 41: PRINT " Spasi - menuju ke lokasi nada "
LOCATE 9, 41: PRINT "      berikutnya"
LOCATE 12, 41: PRINT " Tanda panah pada numeric pad
                untuk "

```

```

LOCATE 13, 41: PRINT "menggeser kekanan,kiri,atas,bawah "
LOCATE 10, 41: PRINT " Backspace - menggeser 1 huruf ke "
LOCATE 11, 41: PRINT "      kiri "
LOCATE 14, 41: PRINT " "
LOCATE 15, 41: PRINT "PENULISAN NADA "
LOCATE 16, 41: PRINT "~~~~~ "
LOCATE 17, 41: PRINT "RENDAH : 1r, 2r, 3r, .. 7r"
LOCATE 18, 41: PRINT "NORMAL : 1, 2, 3, .. 7 "
LOCATE 19, 41: PRINT " ===== "
LOCATE 20, 41: PRINT " [X]-Close [ENTER]-Next [ESC]-
                Back "

```

```

END SUB

```

```

SUB konversi

```

```

STATIC j

```

```

FOR j = 1 TO jk

```

```

    SELECT CASE musik$(j)

```

```

' ***** Do rendah *****

```

```

CASE "1-1r"

```

```

    lagu$(j) = "18 o3 c o2 c"

```

```

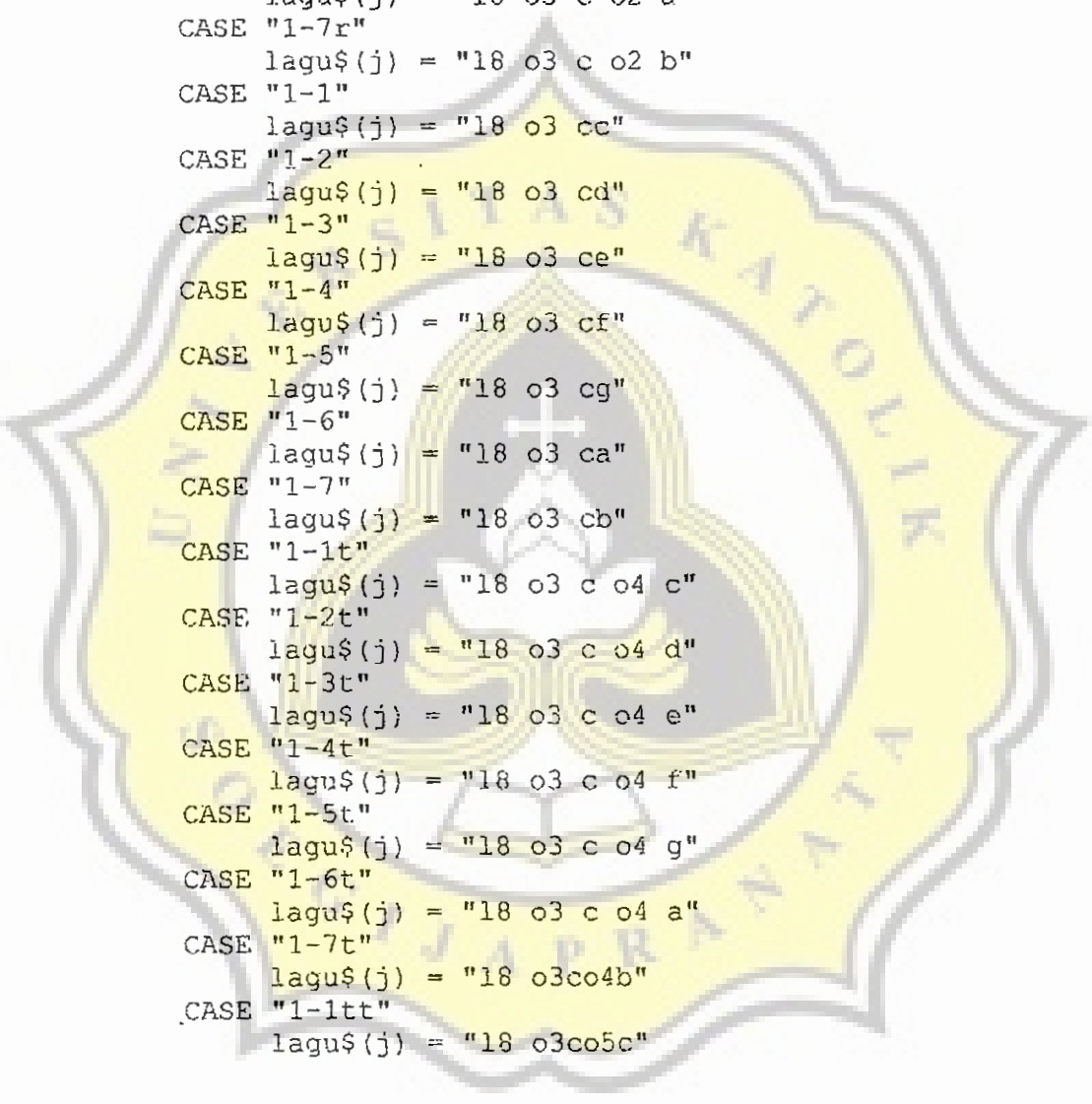
CASE "1-2r"

```

```

    lagu$(j) = "18 o3 c o2 d"

```



CASE "1-3r"
lagu\$(j) = "18 o3 c o2 e"
CASE "1-4r"
lagu\$(j) = "18 o3 c o2 f"
CASE "1-5r"
lagu\$(j) = "18 o3 c o2 g"
CASE "1-6r"
lagu\$(j) = "18 o3 c o2 a"
CASE "1-7r"
lagu\$(j) = "18 o3 c o2 b"
CASE "1-1"
lagu\$(j) = "18 o3 cc"
CASE "1-2"
lagu\$(j) = "18 o3 cd"
CASE "1-3"
lagu\$(j) = "18 o3 ce"
CASE "1-4"
lagu\$(j) = "18 o3 cf"
CASE "1-5"
lagu\$(j) = "18 o3 cg"
CASE "1-6"
lagu\$(j) = "18 o3 ca"
CASE "1-7"
lagu\$(j) = "18 o3 cb"
CASE "1-1t"
lagu\$(j) = "18 o3 c o4 c"
CASE "1-2t"
lagu\$(j) = "18 o3 c o4 d"
CASE "1-3t"
lagu\$(j) = "18 o3 c o4 e"
CASE "1-4t"
lagu\$(j) = "18 o3 c o4 f"
CASE "1-5t"
lagu\$(j) = "18 o3 c o4 g"
CASE "1-6t"
lagu\$(j) = "18 o3 c o4 a"
CASE "1-7t"
lagu\$(j) = "18 o3co4b"
CASE "1-1tt"
lagu\$(j) = "18 o3co5c"

***** Re rendah *****

CASE "2-1r"
lagu\$(j) = "18 o3do2c"
CASE "2-2r"

```
        lagu$(j) = "18 o3do2d"
CASE "2-3r"
        lagu$(j) = "18 o3do2e"
CASE "2-4r"
        lagu$(j) = "18 o3do2f"
CASE "2-5r"
        lagu$(j) = "18 o3do2g"
CASE "2-6r"
        lagu$(j) = "18 o3do2a"
CASE "2-7r"
        lagu$(j) = "18 o3do2b"
CASE "2-1"
        lagu$(j) = "18 o3dc"
CASE "2-2"
        lagu$(j) = "18 o3dd"
CASE "2-3"
        lagu$(j) = "18 o3de"
CASE "2-4"
        lagu$(j) = "18 o3df"
CASE "2-5"
        lagu$(j) = "18 o3dg"
CASE "2-6"
        lagu$(j) = "18 o3da"
CASE "2-7"
        lagu$(j) = "18 o3db"
CASE "2-1t"
        lagu$(j) = "18 o3do4c"
CASE "2-2t"
        lagu$(j) = "18 o3do4d"
CASE "2-3t"
        lagu$(j) = "18 o3do4e"
CASE "2-4t"
        lagu$(j) = "18 o3do4f"
CASE "2-5t"
        lagu$(j) = "18 o3do4g"
CASE "2-6t"
        lagu$(j) = "18 o3do4a"
CASE "2-7t"
        lagu$(j) = "18 o3do4b"
CASE "2-1tt"
        lagu$(j) = "18 o3do5c"
```

***** Mi rendah *****

```
CASE "3-1r"
        lagu$(j) = "18 o3eo2c"
CASE "3-2r"
```

lagu\$(j) = "18 o3eo2d"
CASE "3-3r"
lagu\$(j) = "18 o3eo2e"
CASE "3-4r"
lagu\$(j) = "18 o3eo2f"
CASE "3-5r"
lagu\$(j) = "18 o3eo2g"
CASE "3-6r"
lagu\$(j) = "18 o3eo2a"
CASE "3-7r"
lagu\$(j) = "18 o3eo2b"
CASE "3-1"
lagu\$(j) = "18 o3ec"
CASE "3-2"
lagu\$(j) = "18 o3ed"
CASE "3-3"
lagu\$(j) = "18 o3ee"
CASE "3-4"
lagu\$(j) = "18 o3ef"
CASE "3-5"
lagu\$(j) = "18 o3eg"
CASE "3-6"
lagu\$(j) = "18 o3ea"
CASE "3-7"
lagu\$(j) = "18 o3eb"
CASE "3-1t"
lagu\$(j) = "18 o3eo4c"
CASE "3-2t"
lagu\$(j) = "18 o3eo4d"
CASE "3-3t"
lagu\$(j) = "18 o3eo4e"
CASE "3-4t"
lagu\$(j) = "18 o3eo4f"
CASE "3-5t"
lagu\$(j) = "18 o3eo4g"
CASE "3-6t"
lagu\$(j) = "18 o3eo4a"
CASE "3-7t"
lagu\$(j) = "18 o3eo4b"
CASE "3-1tt"
lagu\$(j) = "18 o3eo5c"

***** Fa rendah *****

CASE "4-1r"
lagu\$(j) = "18 o3fo2c"

CASE "4-2r"
lagu\$(j) = "18 o3fo2d"
CASE "4-3r"
lagu\$(j) = "18 o3fo2e"
CASE "4-4r"
lagu\$(j) = "18 o3fo2f"
CASE "4-5r"
lagu\$(j) = "18 o3fo2g"
CASE "4-6r"
lagu\$(j) = "18 o3fo2a"
CASE "4-7r"
lagu\$(j) = "18 o3fo2b"
CASE "4-1"
lagu\$(j) = "18 o3fc"
CASE "4-2"
lagu\$(j) = "18 o3fd"
CASE "4-3"
lagu\$(j) = "18 o3fe"
CASE "4-4"
lagu\$(j) = "18 o3ff"
CASE "4-5"
lagu\$(j) = "18 o3fg"
CASE "4-6"
lagu\$(j) = "18 o3fa"
CASE "4-7"
lagu\$(j) = "18 o3fb"
CASE "4-1t"
lagu\$(j) = "18 o3fo4c"
CASE "4-2t"
lagu\$(j) = "18 o3fo4d"
CASE "4-3t"
lagu\$(j) = "18 o3fo4e"
CASE "4-4t"
lagu\$(j) = "18 o3fo4f"
CASE "4-5t"
lagu\$(j) = "18 o3fo4g"
CASE "4-6t"
lagu\$(j) = "18 o3fo4a"
CASE "4-7t"
lagu\$(j) = "18 o3fo4b"
CASE "4-1tt"
lagu\$(j) = "18 o3fo5c"

***** Sol rendah *****

CASE "5-1r"

lagu\$(j) = "18 o3go2c"
CASE "5-2r"
lagu\$(j) = "18 o3go2d"
CASE "5-3r"
lagu\$(j) = "18 o3go2e"
CASE "5-4r"
lagu\$(j) = "18 o3go2f"
CASE "5-5r"
lagu\$(j) = "18 o3go2g"
CASE "5-6r"
lagu\$(j) = "18 o3go2a"
CASE "5-7r"
lagu\$(j) = "18 o3go2b"
CASE "5-1"
lagu\$(j) = "18 o3gc"
CASE "5-2"
lagu\$(j) = "18 o3gd"
CASE "5-3"
lagu\$(j) = "18 o3ge"
CASE "5-4"
lagu\$(j) = "18 o3gf"
CASE "5-5"
lagu\$(j) = "18 o3gg"
CASE "5-6"
lagu\$(j) = "18 o3ga"
CASE "5-7"
lagu\$(j) = "18 o3gb"
CASE "5-1t"
lagu\$(j) = "18 o3go4c"
CASE "5-2t"
lagu\$(j) = "18 o3go4d"
CASE "5-3t"
lagu\$(j) = "18 o3go4e"
CASE "5-4t"
lagu\$(j) = "18 o3go4f"
CASE "5-5t"
lagu\$(j) = "18 o3go4g"
CASE "5-6t"
lagu\$(j) = "18 o3go4a"
CASE "5-7t"
lagu\$(j) = "18 o3go4b"
CASE "5-1tt"
lagu\$(j) = "18 o3go5c"

*****La rendah*****

CASE "6-1r"
lagu\$(j) = "18 o3ao2c"



CASE "6-2r"
lagu\$(j) = "18 o3ao2d"
CASE "6-3r"
lagu\$(j) = "18 o3ao2e"
CASE "6-4r"
lagu\$(j) = "18 o3ao2f"
CASE "6-5r"
lagu\$(j) = "18 o3ao2g"
CASE "6-6r"
lagu\$(j) = "18 o3ao2a"
CASE "6-7r"
lagu\$(j) = "18 o3ao2b"
CASE "6-1"
lagu\$(j) = "18 o3ac"
CASE "6-2"
lagu\$(j) = "18 o3ad"
CASE "6-3"
lagu\$(j) = "18 o3ae"
CASE "6-4"
lagu\$(j) = "18 o3af"
CASE "6-5"
lagu\$(j) = "18 o3ag"
CASE "6-6"
lagu\$(j) = "18 o3aa"
CASE "6-7"
lagu\$(j) = "18 o3ab"
CASE "6-1t"
lagu\$(j) = "18 o3ao4c"
CASE "6-2t"
lagu\$(j) = "18 o3ao4d"
CASE "6-3t"
lagu\$(j) = "18 o3ao4e"
CASE "6-4t"
lagu\$(j) = "18 o3ao4f"
CASE "6-5t"
lagu\$(j) = "18 o3ao4g"
CASE "6-6t"
lagu\$(j) = "18 o3ao4a"
CASE "6-7t"
lagu\$(j) = "18 o3ao4b"
CASE "6-1tt"
lagu\$(j) = "18 o3ao5c"

***** Si rendah *****

CASE "7-1r"
lagu\$(j) = "18 o3bo2c"

CASE "7-2r"
lagu\$(j) = "18 o3bo2d"
CASE "7-3r"
lagu\$(j) = "18 o3bo2e"
CASE "7-4r"
lagu\$(j) = "18 o3bo2f"
CASE "7-5r"
lagu\$(j) = "18 o3bo2g"
CASE "7-6r"
lagu\$(j) = "18 o3bo2a"
CASE "7-7r"
lagu\$(j) = "18 o3bo2b"
CASE "7-1"
lagu\$(j) = "18 o3bc"
CASE "7-2"
lagu\$(j) = "18 o3bd"
CASE "7-3"
lagu\$(j) = "18 o3be"
CASE "7-4"
lagu\$(j) = "18 o3bf"
CASE "7-5"
lagu\$(j) = "18 o3bg"
CASE "7-6"
lagu\$(j) = "18 o3ba"
CASE "7-7"
lagu\$(j) = "18 o3bb"
CASE "7-1t"
lagu\$(j) = "18 o3bo4c"
CASE "7-2t"
lagu\$(j) = "18 o3bo4d"
CASE "7-3t"
lagu\$(j) = "18 o3bo4e"
CASE "7-4t"
lagu\$(j) = "18 o3bo4f"
CASE "7-5t"
lagu\$(j) = "18 o3bo4g"
CASE "7-6t"
lagu\$(j) = "18 o3bo4a"
CASE "7-7t"
lagu\$(j) = "18 o3bo4b"
CASE "7-1tt"
lagu\$(j) = "18 o3bo5c"

***** Nada 0 *****

CASE "0"
lagu\$(j) = "p4"



CASE "0-1r"
 lagu\$(j) = "p818o2c"
 CASE "0-2r"
 lagu\$(j) = "p818o2d"
 CASE "0-3r"
 lagu\$(j) = "p818o2e"
 CASE "0-4r"
 lagu\$(j) = "p818o2f"
 CASE "0-5r"
 lagu\$(j) = "p818o2g"
 CASE "0-6r"
 lagu\$(j) = "p818o2a"
 CASE "0-7r"
 lagu\$(j) = "p818o2b"
 CASE "0-1"
 lagu\$(j) = "p818o3c"
 CASE "0-2"
 lagu\$(j) = "p818o3d"
 CASE "0-3"
 lagu\$(j) = "p818o3e"
 CASE "0-4"
 lagu\$(j) = "p818o3f"
 CASE "0-5"
 lagu\$(j) = "p818o3g"
 CASE "0-6"
 lagu\$(j) = "p818o3a"
 CASE "0-7"
 lagu\$(j) = "p818o3b"
 CASE "0-1t"
 lagu\$(j) = "p818o4c"
 CASE "0-2t"
 lagu\$(j) = "p818o4d"
 CASE "0-3t"
 lagu\$(j) = "p818o4e"
 CASE "0-4t"
 lagu\$(j) = "p818o4f"
 CASE "0-5t"
 lagu\$(j) = "p818o4g"
 CASE "0-6t"
 lagu\$(j) = "p818o4a"
 CASE "0-7t"
 lagu\$(j) = "p818o4b"
 CASE "0-1tt"
 lagu\$(j) = "p818o5c"



```

CASE "/1r"
  lagu$(j) = "14 o2c+"
CASE "/2r"
  lagu$(j) = "14 o2d+"
CASE "/4r"
  lagu$(j) = "14 o2f+"
CASE "/5r"
  lagu$(j) = "14 o2g+"
CASE "/6r"
  lagu$(j) = "14 o2a+"
CASE "/1"
  lagu$(j) = "14 o3c+"
CASE "/2"
  lagu$(j) = "14 o3d+"
CASE "/4"
  lagu$(j) = "14 o3f+"
CASE "/5"
  lagu$(j) = "14 o3g+"
CASE "/6"
  lagu$(j) = "14 o3a+"
CASE "/1t"
  lagu$(j) = "14 o4c+"
CASE "/2t"
  lagu$(j) = "14 o4d+"
CASE "/4t"
  lagu$(j) = "14o4f+"
CASE "/5t"
  lagu$(j) = "14o4g+"
CASE "/6t"
  lagu$(j) = "14o4a+"
CASE "/1tt"
  lagu$(j) = "14o5c+"

```

' ***** nada titik (.) *****'

```

CASE "."
  IF j - 1 < 0 THEN j = 1
  lagu$(j - 1) = RTRIM$(lagu$(j - 1)) + "2"
  lagu$(j) = " "

```

```

CASE ".."
  IF j - 1 < 0 THEN j = 1
  lagu$(j - 1) = RTRIM$(lagu$(j - 1)) + "."
  lagu$(j) = " "

```

'***** .- *****'

CASE ".-1"

```
IF j - 1 < 0 THEN j = 1
lagu$(j - 1) = RTRIM$(lagu$(j - 1)) + "."
MID$(lagu$(j - 1), 1) = "L4"
lagu$(j) = "18o3c"
```

CASE ".-2"

```
IF j - 1 < 0 THEN j = 1
lagu$(j - 1) = RTRIM$(lagu$(j - 1)) + "."
MID$(lagu$(j - 1), 1) = "L4"
lagu$(j) = "18o3d"
```

CASE ".-3"

```
IF j - 1 < 0 THEN j = 1
lagu$(j - 1) = lagu$(j - 1) + "."
MID$(lagu$(j - 1), 1) = "L4"
lagu$(j) = "18o3e"
```

CASE ".-4"

```
IF j - 1 < 0 THEN j = 1
lagu$(j - 1) = lagu$(j - 1) + "."
MID$(lagu$(j - 1), 1) = "L4"
lagu$(j) = "18o3f"
```

CASE ".-5"

```
IF j - 1 < 0 THEN j = 1
lagu$(j - 1) = lagu$(j - 1) + "."
MID$(lagu$(j - 1), 1) = "L4"
lagu$(j) = "18o3g "
```

CASE ".-6"

```
IF j - 1 < 0 THEN j = 1
lagu$(j - 1) = lagu$(j - 1) + "."
MID$(lagu$(j - 1), 1) = "L4"
lagu$(j) = "18o3a"
```

CASE ".-7"

```
IF j - 1 < 0 THEN j = 1
lagu$(j - 1) = lagu$(j - 1) + "."
MID$(lagu$(j - 1), 1) = "L4"
lagu$(j) = "18o3b"
```

CASE ".-1t"

```
IF j - 1 < 0 THEN j = 1
lagu$(j - 1) = lagu$(j - 1) + "."
```



```
MID$(lagu$(j - 1), 1) = "L4"  
lagu$(j) = "18o4c"
```

```
CASE ".-2t"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o4d"
```

```
CASE ".-3t"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o4e"
```

```
CASE ".-4t"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o4f"
```

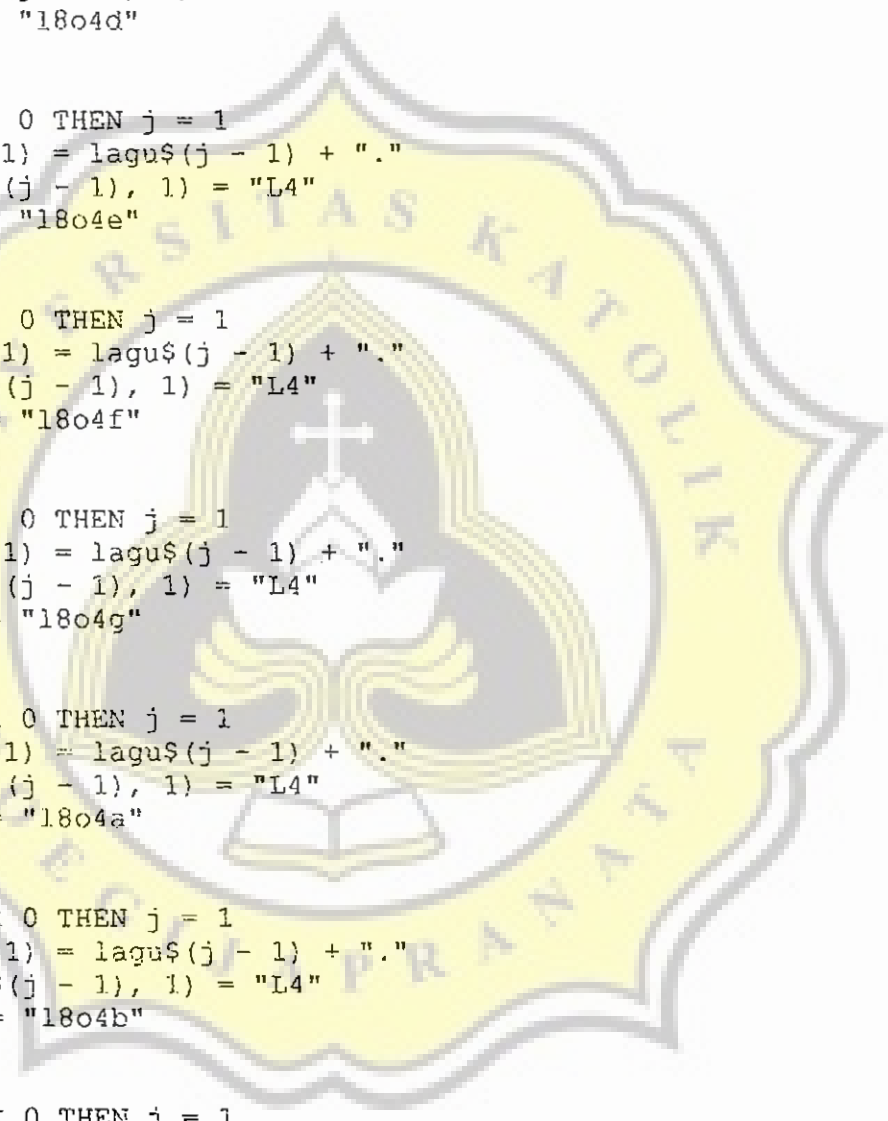
```
CASE ".-5t"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o4g"
```

```
CASE ".-6t"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o4a"
```

```
CASE ".-7t"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o4b"
```

```
CASE ".-1r"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o2c"
```

```
CASE ".-2r"  
  IF j - 1 < 0 THEN j = 1
```




```
MID$(lagu$(j - 1), 1) = "L4"  
lagu$(j - 1) = lagu$(j - 1) + "."  
lagu$(j) = "18o2d"
```

```
CASE ".-3r"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "1823e"
```

```
CASE ".-4r"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o2f"
```

```
CASE ".-5r"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o2g"
```

```
CASE ".-6r"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o2a"
```

```
CASE ".-7r"  
  IF j - 1 < 0 THEN j = 1  
  lagu$(j - 1) = lagu$(j - 1) + "."  
  MID$(lagu$(j - 1), 1) = "L4"  
  lagu$(j) = "18o2b"
```

```
' ***** Nada normal *****
```

```
CASE "1"  
  lagu$(j) = "14 o3c"  
CASE "2"  
  lagu$(j) = "14 o3d"  
CASE "3"  
  lagu$(j) = "14 o3e"  
CASE "4"  
  lagu$(j) = "14 o3f"  
CASE "5"  
  lagu$(j) = "14 o3g"  
CASE "6"
```

lagu\$(j) = "14 o3a"
CASE "7"
lagu\$(j) = "14 o3b"

***** Nada rendah *****

CASE "1r"
lagu\$(j) = "14 o2c"
CASE "2r"
lagu\$(j) = "14 o2d"
CASE "3r"
lagu\$(j) = "14 o2e"
CASE "4r"
lagu\$(j) = "14 o2f"
CASE "5r"
lagu\$(j) = "14 o2g"
CASE "6r"
lagu\$(j) = "14 o2a"
CASE "7r"
lagu\$(j) = "14 o2b"

***** Nada Tinggi *****

CASE "1t"
lagu\$(j) = "14 o4c"
CASE "2t"
lagu\$(j) = "14 o4d"
CASE "3t"
lagu\$(j) = "14 o4e"
CASE "4t"
lagu\$(j) = "14 o4f"
CASE "5t"
lagu\$(j) = "14 o4g"
CASE "6t"
lagu\$(j) = "14 o4a"
CASE "7t"
lagu\$(j) = "14 o4b"
CASE "1tt"
lagu\$(j) = "14 o5c"

*****D0ren 1/8*****

CASE "1r-1r"
lagu\$(j) = "18 o2cc"
CASE "2r-1r"

lagu\$(j) = "18 o2dc"
CASE "3r-1r"
lagu\$(j) = "18 o2ec"
CASE "4r-1r"
lagu\$(j) = "18 o2fc"
CASE "5r-1r"
lagu\$(j) = "18 o2gc"
CASE "6r-1r"
lagu\$(j) = "18 o2ac"
CASE "7r-1r"
lagu\$(j) = "18 o2bc"
CASE "1r-2r"
lagu\$(j) = "18 o2cd"
CASE "2r-2r"
lagu\$(j) = "18 o2dd"
CASE "3r-2r"
lagu\$(j) = "18 o2ed"
CASE "4r-2r"
lagu\$(j) = "18 o2fd"
CASE "5r-2r"
lagu\$(j) = "18 o2gd"
CASE "6r-2r"
lagu\$(j) = "18 o2ad"
CASE "7r-2r"
lagu\$(j) = "18 o2bd"
CASE "1r-3r"
lagu\$(j) = "18 o2ce"
CASE "2r-3r"
lagu\$(j) = "18 o2de"
CASE "3r-3r"
lagu\$(j) = "18 o2ee"
CASE "4r-3r"
lagu\$(j) = "18 o2fe"
CASE "5r-3r"
lagu\$(j) = "18 o2ge"
CASE "6r-3r"
lagu\$(j) = "18 o2ae"
CASE "7r-3r"
lagu\$(j) = "18 o2be"
CASE "1r-4r"
lagu\$(j) = "18 o2cf"
CASE "2r-4r"
lagu\$(j) = "18 o2df"
CASE "3r-4r"
lagu\$(j) = "18 o2ef"
CASE "4r-4r"
lagu\$(j) = "18 o2ff"

CASE "5r-4r"
lagu\$(j) = "18 o2gf"
CASE "6r-4r"
lagu\$(j) = "18 o2af"
CASE "7r-4r"
lagu\$(j) = "18 o2bf"
CASE "1r-5r"
lagu\$(j) = "18 o2cg"
CASE "2r-5r"
lagu\$(j) = "18 o2dg"
CASE "3r-5r"
lagu\$(j) = "18 o2eg"
CASE "4r-5r"
lagu\$(j) = "18 o2fg"
CASE "5r-5r"
lagu\$(j) = "18 o2gg"
CASE "6r-5r"
lagu\$(j) = "18 o2ag"
CASE "7r-5r"
lagu\$(j) = "18 o2bg"
CASE "1r-6r"
lagu\$(j) = "18 o2ca"
CASE "2r-6r"
lagu\$(j) = "18 o2da"
CASE "3r-6r"
lagu\$(j) = "18 o2ea"
CASE "4r-6r"
lagu\$(j) = "18 o2fa"
CASE "5r-6r"
lagu\$(j) = "18 o2ga"
CASE "6r-6r"
lagu\$(j) = "18 o2aa"
CASE "7r-6r"
lagu\$(j) = "18 o2ba"

CASE "1r-7r"
lagu\$(j) = "18 o2cb"
CASE "2r-7r"
lagu\$(j) = "18 o2db"
CASE "3r-7r"
lagu\$(j) = "18 o2eb"
CASE "4r-7r"
lagu\$(j) = "18 o2fb"
CASE "5r-7r"
lagu\$(j) = "18 o2gb"
CASE "6r-7r"
lagu\$(j) = "18 o2ab"

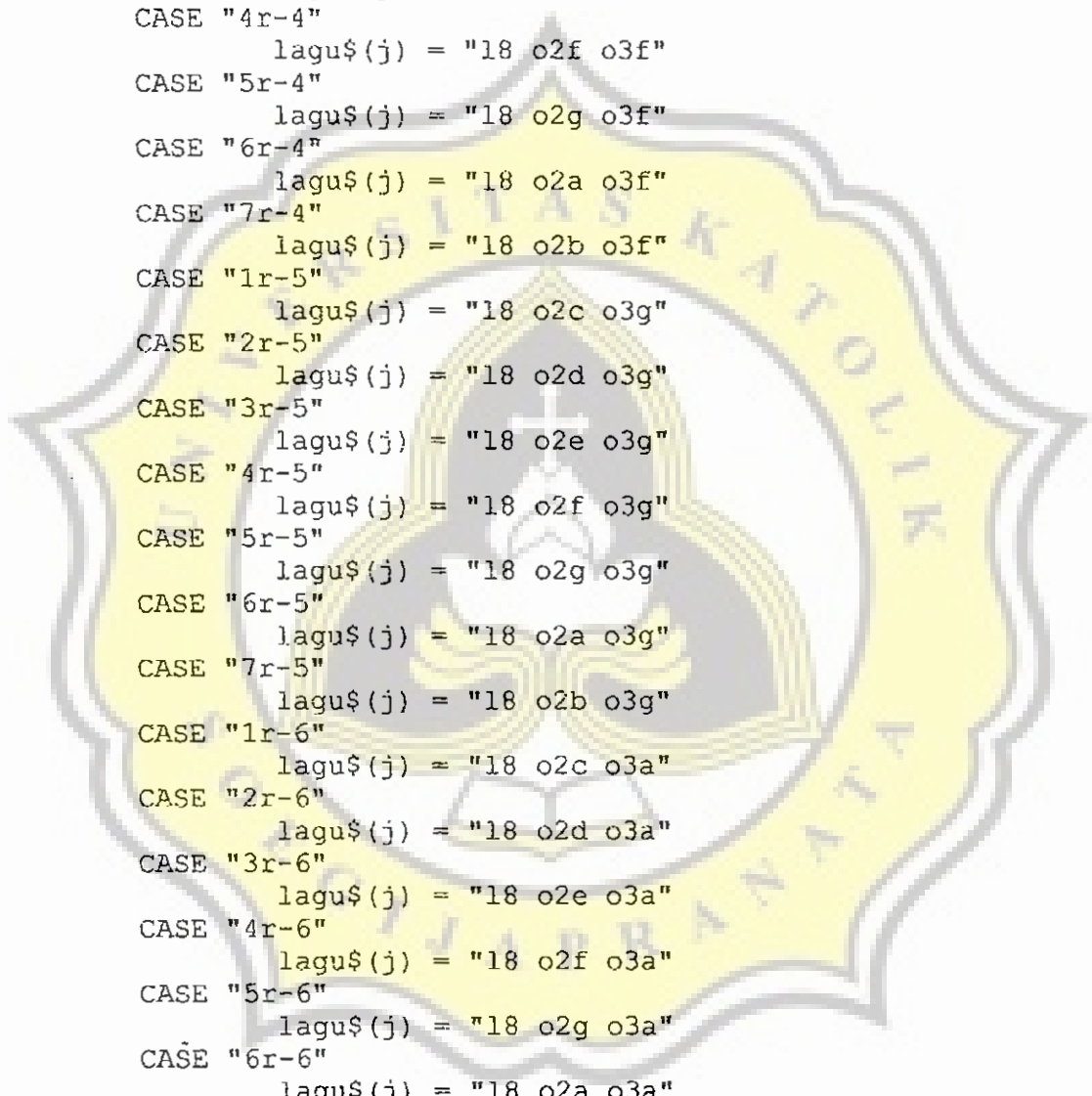
CASE "7r-7r"
lagu\$(j) = "18 o2bb"

***** rendah biasa 1/8 *****

CASE "1r-1"
lagu\$(j) = "18 o2c o3c"
CASE "2r-1"
lagu\$(j) = "18 o2d o3c"
CASE "3r-1"
lagu\$(j) = "18 o2e o3c"
CASE "4r-1"
lagu\$(j) = "18 o2f o3c"
CASE "5r-1"
lagu\$(j) = "18 o2g o3c"
CASE "6r-1"
lagu\$(j) = "18 o2a o3c"
CASE "7r-1"
lagu\$(j) = "18 o2b o3c"
CASE "1r-2"
lagu\$(j) = "18 o2c o3d"
CASE "2r-2"
lagu\$(j) = "18 o2d o3d"
CASE "3r-2"
lagu\$(j) = "18 o2e o3d"
CASE "4r-2"
lagu\$(j) = "18 o2f o3d"
CASE "5r-2"
lagu\$(j) = "18 o2g o3d"
CASE "6r-2"
lagu\$(j) = "18 o2a o3d"
CASE "7r-2"
lagu\$(j) = "18 o2b o3d"
CASE "1r-3"
lagu\$(j) = "18 o2c o3e"
CASE "2r-3"
lagu\$(j) = "18 o2d o3e"
CASE "3r-3"
lagu\$(j) = "18 o2e o3e"
CASE "4r-3"
lagu\$(j) = "18 o2f o3e"
CASE "5r-3"
lagu\$(j) = "18 o2g o3e"
CASE "6r-3"
lagu\$(j) = "18 o2a o3e"
CASE "7r-3"

lagu\$(j) = "18 o2b o3e"
CASE "1r-4"
lagu\$(j) = "18 o2c o3f"
CASE "2r-4"
lagu\$(j) = "18 o2d o3f"
CASE "3r-4"
lagu\$(j) = "18 o2e o3f"
CASE "4r-4"
lagu\$(j) = "18 o2f o3f"
CASE "5r-4"
lagu\$(j) = "18 o2g o3f"
CASE "6r-4"
lagu\$(j) = "18 o2a o3f"
CASE "7r-4"
lagu\$(j) = "18 o2b o3f"
CASE "1r-5"
lagu\$(j) = "18 o2c o3g"
CASE "2r-5"
lagu\$(j) = "18 o2d o3g"
CASE "3r-5"
lagu\$(j) = "18 o2e o3g"
CASE "4r-5"
lagu\$(j) = "18 o2f o3g"
CASE "5r-5"
lagu\$(j) = "18 o2g o3g"
CASE "6r-5"
lagu\$(j) = "18 o2a o3g"
CASE "7r-5"
lagu\$(j) = "18 o2b o3g"
CASE "1r-6"
lagu\$(j) = "18 o2c o3a"
CASE "2r-6"
lagu\$(j) = "18 o2d o3a"
CASE "3r-6"
lagu\$(j) = "18 o2e o3a"
CASE "4r-6"
lagu\$(j) = "18 o2f o3a"
CASE "5r-6"
lagu\$(j) = "18 o2g o3a"
CASE "6r-6"
lagu\$(j) = "18 o2a o3a"
CASE "7r-6"
lagu\$(j) = "18 o2b o3a"

CASE "1r-7"
lagu\$(j) = "18 o2c o3b"
CASE "2r-7"



lagu\$(j) = "18 o2d o3b"
CASE "3r-7"
lagu\$(j) = "18 o2e o3b"
CASE "4r-7"
lagu\$(j) = "18 o2f o3b"
CASE "5r-7"
lagu\$(j) = "18 o2g o3b"
CASE "6r-7"
lagu\$(j) = "18 o2a o3b"
CASE "7r-7"
lagu\$(j) = "18 o2b o3b"

*****rendah tinggi 1/8 *****

CASE "1r-1t"
lagu\$(j) = "18 o2c o4c"
CASE "2r-1t"
lagu\$(j) = "18 o2d o4c"
CASE "3r-1t"
lagu\$(j) = "18 o2e o4c"
CASE "4r-1t"
lagu\$(j) = "18 o2f o4c"
CASE "5r-1t"
lagu\$(j) = "18 o2g o4c"
CASE "6r-1t"
lagu\$(j) = "18 o2a o4c"
CASE "7r-1t"
lagu\$(j) = "18 o2b o4c"
CASE "1r-2t"
lagu\$(j) = "18 o2c o4d"
CASE "2r-2t"
lagu\$(j) = "18 o2d o4d"
CASE "3r-2t"
lagu\$(j) = "18 o2e o4d"
CASE "4r-2t"
lagu\$(j) = "18 o2f o4d"
CASE "5r-2t"
lagu\$(j) = "18 o2g o4d"
CASE "6r-2t"
lagu\$(j) = "18 o2a o4d"
CASE "7r-2t"
lagu\$(j) = "18 o2b o4d"

*****tinggi biasa 1/8 *****

CASE "1t-1"
lagu\$(j) = "18 o4c o3c"
CASE "2t-1"
lagu\$(j) = "18 o4d o3c"
CASE "3t-1"
lagu\$(j) = "18 o4e o3c"
CASE "4t-1"
lagu\$(j) = "18 o4f o3c"
CASE "5t-1"
lagu\$(j) = "18 o4g o3c"
CASE "6t-1"
lagu\$(j) = "18 o4a o3c"
CASE "7t-1"
lagu\$(j) = "18 o4b o3c"
CASE "1tt-1"
lagu\$(j) = "18 o5c o3c"
CASE "1t-2"
lagu\$(j) = "18 o4c o3d"
CASE "2t-2"
lagu\$(j) = "18 o4d o3d"
CASE "3t-2"
lagu\$(j) = "18 o4e o3d"
CASE "4t-2"
lagu\$(j) = "18 o4f o3d"
CASE "5t-2"
lagu\$(j) = "18 o4g o3d"
CASE "6t-2"
lagu\$(j) = "18 o4a o3d"
CASE "7t-2"
lagu\$(j) = "18 o4b o3d"
CASE "1tt-2"
lagu\$(j) = "18 o5c o3d"
CASE "1t-3"
lagu\$(j) = "18 o4c o3e"
CASE "2t-3"
lagu\$(j) = "18 o4d o3e"
CASE "3t-3"
lagu\$(j) = "18 o4e o3e"
CASE "4t-3"
lagu\$(j) = "18 o4f o3e"
CASE "5t-3"
lagu\$(j) = "18 o4g o3e"
CASE "6t-3"
lagu\$(j) = "18 o4a o3e"
CASE "7t-3"
lagu\$(j) = "18 o4b o3e"
CASE "1tt-3"

lagu\$(j) = "18 o5c o3e"
CASE "1t-4"
lagu\$(j) = "18 o4c o3f"
CASE "2t-4"
lagu\$(j) = "18 o4d o3f"
CASE "3t-4"
lagu\$(j) = "18 o4e o3f"
CASE "4t-4"
lagu\$(j) = "18 o4f o3f"
CASE "5t-4"
lagu\$(j) = "18 o4g o3f"
CASE "6t-4"
lagu\$(j) = "18 o4a o3f"
CASE "7t-4"
lagu\$(j) = "18 o4b o3f"
CASE "1tt-4"
lagu\$(j) = "18 o5c o3f"
CASE "1t-5"
lagu\$(j) = "18 o4c o3g"
CASE "2t-5"
lagu\$(j) = "18 o4d o3g"
CASE "3t-5"
lagu\$(j) = "18 o4e o3g"
CASE "4t-5"
lagu\$(j) = "18 o4f o3g"
CASE "5t-5"
lagu\$(j) = "18 o4g o3g"
CASE "6t-5"
lagu\$(j) = "18 o4a o3g"
CASE "7t-5"
lagu\$(j) = "18 o4b o3g"
CASE "1tt-5"
lagu\$(j) = "18 o5c o3g"
CASE "1t-6"
lagu\$(j) = "18 o4c o3a"
CASE "2t-6"
lagu\$(j) = "18 o4d o3a"
CASE "3t-6"
lagu\$(j) = "18 o4e o3a"
CASE "4t-6"
lagu\$(j) = "18 o4f o3a"
CASE "5t-6"
lagu\$(j) = "18 o4g o3a"
CASE "6t-6"
lagu\$(j) = "18 o4a o3a"
CASE "7t-6"
lagu\$(j) = "18 o4b o3a"

CASE "1tt-6"
lagu\$(j) = "18 o5c o3a"

***** tinggi - tinggi 1/8 *****

CASE "1t-1t"
lagu\$(j) = "18 o4c o4c"
CASE "2t-1t"
lagu\$(j) = "18 o4d o4c"
CASE "3t-1t"
lagu\$(j) = "18 o4e o4c"
CASE "4t-1t"
lagu\$(j) = "18 o4f o4c"
CASE "5t-1t"
lagu\$(j) = "18 o4g o4c"
CASE "6t-1t"
lagu\$(j) = "18 o4a o4c"
CASE "7t-1t"
lagu\$(j) = "18 o4b o4c"
CASE "1tt-1t"
lagu\$(j) = "18 o5c o4c"
CASE "1t-2t"
lagu\$(j) = "18 o4c o4d"
CASE "2t-2t"
lagu\$(j) = "18 o4d o4d"
CASE "3t-2t"
lagu\$(j) = "18 o4e o4d"
CASE "4t-2t"
lagu\$(j) = "18 o4f o4d"
CASE "5t-2t"
lagu\$(j) = "18 o4g o4d"
CASE "6t-2t"
lagu\$(j) = "18 o4a o4d"
CASE "7t-2t"
lagu\$(j) = "18 o4b o4d"
CASE "1tt-2t"
lagu\$(j) = "18 o5c o4d"
CASE "1t-3t"
lagu\$(j) = "18 o4c o4e"
CASE "2t-3t"
lagu\$(j) = "18 o4d o4e"
CASE "3t-3t"
lagu\$(j) = "18 o4e o4e"
CASE "4t-3t"
lagu\$(j) = "18 o4f o4e"
CASE "5t-3t"

lagu\$(j) = "18 o4g o4e"
CASE "6t-3t"
lagu\$(j) = "18 o4a o4e"
CASE "7t-3t"
lagu\$(j) = "18 o4b o4e"
CASE "1tt-3t"
lagu\$(j) = "18 o5c o4e"
CASE "1t-4t"
lagu\$(j) = "18 o4c o4f"
CASE "2t-4t"
lagu\$(j) = "18 o4d o4f"
CASE "3t-4t"
lagu\$(j) = "18 o4e o4f"
CASE "4t-4t"
lagu\$(j) = "18 o4f o4f"
CASE "5t-4t"
lagu\$(j) = "18 o4g o4f"
CASE "6t-4t"
lagu\$(j) = "18 o4a o4f"
CASE "7t-4t"
lagu\$(j) = "18 o4b o4f"
CASE "1tt-4t"
lagu\$(j) = "18 o5c o4f"
CASE "1t-5t"
lagu\$(j) = "18 o4c o4g"
CASE "2t-5t"
lagu\$(j) = "18 o4d o4g"
CASE "3t-5t"
lagu\$(j) = "18 o4e o4g"
CASE "4t-5t"
lagu\$(j) = "18 o4f o4g"
CASE "5t-5t"
lagu\$(j) = "18 o4g o4g"
CASE "6t-5t"
lagu\$(j) = "18 o4a o4g"
CASE "7t-5t"
lagu\$(j) = "18 o4b o4g"
CASE "1tt-5t"
lagu\$(j) = "18 o5c o4g"
CASE "1t-6t"
lagu\$(j) = "18 o4c o4a"
CASE "2t-6t"
lagu\$(j) = "18 o4d o4a"
CASE "3t-6t"
lagu\$(j) = "18 o4e o4a"
CASE "4t-6t"
lagu\$(j) = "18 o4f o4a"

```

CASE "5t-6t"
    lagu$(j) = "18 o4g o4a"
CASE "6t-6t"
    lagu$(j) = "18 o4a o4a"
CASE "7t-6t"
    lagu$(j) = "18 o4b o4a"
CASE "1tt-6t"
    lagu$(j) = "18 o5c o4a"
CASE "1t-7t"
    lagu$(j) = "18 o4c o4b"
CASE "2t-7t"
    lagu$(j) = "18 o4d o4b"
CASE "3t-7t"
    lagu$(j) = "18 o4e o4b"
CASE "4t-7t"
    lagu$(j) = "18 o4f o4b"
CASE "5t-7t"
    lagu$(j) = "18 o4g o4b"
CASE "6t-7t"
    lagu$(j) = "18 o4a o4b"
CASE "7t-7t"
    lagu$(j) = "18 o4b o4b"
CASE "1tt-7t"
    lagu$(j) = "18 o5c o4b"
END SELECT
NEXT
END SUB

SUB kosong
    ERASE huruf$
    ERASE musik$
    ERASE lagu$
    FOR j = 0 TO maxkar
        huruf$(j) = " "
    NEXT
END SUB

SUB kotak (xx1, yy1, x2, y2) STATIC
    STATIC i
    LOCATE xx1, yy1
    PRINT CHR$(201) + STRING$(y2 - yy1 - 2, 205);
    PRINT CHR$(187)

    FOR i = xx1 + 1 TO x2 - 1
        LOCATE i, yy1

```

```
    PRINT CHR$(186) + SPACE$(y2 - yy1 - 2);
    PRINT CHR$(186)
NEXT i
LOCATE x2, yy1
PRINT CHR$(200) + STRING$(y2 - yy1 - 2, 205);
PRINT CHR$(188)
END SUB
```

```
SUB KunciOff
KEY(F1) STOP
KEY(F2) STOP
KEY(F3) STOP
KEY(F4) STOP
KEY(F5) STOP
KEY(F6) STOP
KEY(F9) STOP
KEY(F10) STOP
KEY(NAIK) STOP
KEY(TURUN) STOP
KEY(kiri) STOP
KEY(KANAN) STOP
END SUB
```

```
SUB kunciOn
KEY(F1) ON
KEY(F2) ON
KEY(F3) ON
KEY(F4) ON
KEY(F5) ON
KEY(F6) ON
KEY(F9) ON
KEY(F10) ON
KEY(NAIK) ON
KEY(TURUN) ON
KEY(kiri) ON
KEY(KANAN) ON
END SUB
```

```
SUB layar
COLOR 0, 15
CALL kotak(2, 2, 22, 80)
END SUB
```



SUB menu

COLOR 14, 1

LOCATE 1, 2: COLOR 15, 2: PRINT "F1"

LOCATE 1, 4: COLOR 14, 1: PRINT "-Help"

LOCATE 1, 11: COLOR 15, 2: PRINT "F2"

LOCATE 1, 13: COLOR 14, 1: PRINT "-Simpan"

LOCATE 1, 21: COLOR 15, 2: PRINT "F3"

LOCATE 1, 23: COLOR 14, 1: PRINT "-Open"

LOCATE 1, 30: COLOR 15, 2: PRINT "F4"

LOCATE 1, 32: COLOR 14, 1: PRINT "-Tempo"

LOCATE 1, 40: COLOR 15, 2: PRINT "F5"

LOCATE 1, 42: COLOR 14, 1: PRINT "-Dengar"

LOCATE 1, 51: COLOR 15, 2: PRINT "F6"

LOCATE 1, 53: COLOR 14, 1: PRINT "-Birama"

LOCATE 1, 62: COLOR 15, 2: PRINT "F9"

LOCATE 1, 64: COLOR 14, 1: PRINT "-New"

LOCATE 1, 71: COLOR 15, 2: PRINT "F10"

LOCATE 1, 74: COLOR 14, 1: PRINT "-Quit"

END SUB

SUB menubawah

LOCATE 23, 1: COLOR 14, 1: PRINT SPACE\$(80)

LOCATE 23, 2: COLOR 14, 1: PRINT "Tempo : "

LOCATE 23, 10: PRINT MID\$(tempo\$, 2, 4)

LOCATE 23, 30: COLOR 14, 1: PRINT "File : "

LOCATE 23, 37: PRINT file\$

LOCATE 23, 60: COLOR 14, 1: PRINT "Birama : "

LOCATE 23, 70: PRINT brm\$

END SUB

SUB nadake

ND = 0

```

FOR j = kolom + 1 TO i
  IF huruf$(j) <> "~" AND huruf$(j) <> "|" THEN
    IF huruf$(j + 1) = "~" OR huruf$(j + 1) = "|"
THEN
      ND = ND + 1
    END IF
  END IF
NEXT
END SUB

```

```

SUB nadaku
  jk = 1
  msk$ = " "
  CALL cari
  IF akhir >= maxkar THEN akhir = maxkar - 1

  FOR j = kolom + 1 TO akhir
    IF huruf$(j) <> "~" AND huruf$(j) <> "|" THEN
      msk$ = msk$ + huruf$(j)
      msk$ = RTRIM$(msk$)
      msk$ = LTRIM$(msk$)

      IF huruf$(j + 1) = "~" OR huruf$(j + 1) = "|" THEN
        musik$(jk) = msk$
        msk$ = " "
        jk = jk + 1
      END IF
    END IF
  NEXT

  musik$(jk) = " "
  musik$(jk + 1) = " "
  musik$(jk + 2) = " "
  FOR j = 1 TO jk - 1
    SELECT CASE musik$(j)
      CASE "."
        SELECT CASE musik$(j + 1)
          CASE "."
            musik$(j) = "."
            musik$(j + 1) = " "

            SELECT CASE musik$(j + 2)
              CASE "."
                musik$(j) = ".."
                musik$(j + 1) = " "
                musik$(j + 2) = " "

```

```

                                END SELECT
                                END SELECT

                                END SELECT
NEXT
END SUB

SUB nilaiAwal
j = 1
MaxRow = INT(maxkar / kolom)
x = 0: y = 0: Brs = 1
i = kolom + 1
akhir = kolom + 1

tempo$ = "t120"
file$ = "NoName.nd"
brm$ = "3/4"
birama$ = "MS"
B = 3

CALL kosong

huruf$(0) = "M": huruf$(1) = "S"
huruf$(10) = "t": huruf$(11) = "1": huruf$(12) = "2":
huruf$(13) = "0"
huruf$(akhir + 2) = "*"
CALL cari
END SUB

SUB posisi
COLOR 0, 15
IF i <= 0 THEN i = 0
IF i >= kolom THEN
    y = INT(i / kolom) + y1

    IF y >= 20 THEN y = 20
    Brs = INT(i / kolom) + 1
ELSE
    Brs = 1
    y = y1
END IF
x = (i MOD kolom) + x1
LOCATE y, x, 1
END SUB

```


LAMPIRAN B

ANGKET PENGUJIAN PERANGKAT LUNAK UNTUK APLIKASI MUSIK KOMPUTER

I. Tampilan Program dan Kemudahan Pemakaian

Poin nilai :

1 = kurang 2 = cukup 3 = baik 4 = baik sekali

Questionary (nilai bisa menggunakan desimal, misal 2,5)

1. Tampilan program aplikasi poin = 2
2. Kemudahan pemakaian program aplikasi poin = 2
3. Kelengkapan fasilitas yang digunakan dalam dalam program aplikasi poin = 3

II. Bandingkan nada – nada yang dihasilkan oleh program aplikasi dengan nada – nada dari alat musik yang asli.

- Hasil Tidak sunbang / sama sunbang

- Alat musik yang digunakan : *keybord*

III. Bunyi yang dihasilkan .

Poin nilai :

1 = jelek 2 = cukup 3 = baik 4 = baik sekali

Hasil (bisa menggunakan poin desimal, misal 2,5)

1. Alat musik poin = 3
2. Program aplikasi poin = 2

IV. Saran -- saran untuk pengembangan program aplikasi ini :

- Setelah memulos satu angka secara otomatis pindah ke lokasi nada berikutnya.

**ANGKET PENGUJIAN PERANGKAT LUNAK
UNTUK APLIKASI MUSIK KOMPUTER**

I. Tampilan Program dan Kemudahan Pemakaian

Poin nilai :

1 = kurang 2 = cukup 3 = baik 4 = baik sekali

Questionary (nilai bisa menggunakan desimal , misal 2,5)

- | | |
|---|-------------------|
| 1. Tampilan program aplikasi | poin = <u>2,5</u> |
| 2. Kemudahan pemakaian program aplikasi | poin = <u>2,5</u> |
| 3. Kelengkapan fasilitas yang digunakan dalam
dalam program aplikasi | poin = <u>1,5</u> |

II. Bandingkan nada – nada yang dihasilkan oleh program aplikasi dengan nada – nada dari alat musik yang asli.

- Hasil Tidak sumbang / sama sumbang

- Alat musik yang digunakan : Pianika

III. Bunyi yang dihasilkan .

Poin nilai :

1 = jelek 2 = cukup 3 = baik 4 = baik sekali

Hasil (bisa menggunakan poin desimal, misal 2,5)

- | | |
|---------------------|-------------------|
| 1. Alat musik | poin = <u>2,5</u> |
| 2. Program aplikasi | poin = <u>2,5</u> |

IV. Saran – saran untuk pengembangan program aplikasi ini :

1. Fasilitas ditambah misalnya ada akord sehingga musik lebih bagus.
2. Tampilan dibuat warna - warni

**ANGKET PENGUJIAN PERANGKAT LUNAK
UNTUK APLIKASI MUSIK KOMPUTER**

I. Tampilan Program dan Kemudahan Pemakaian

Poin nilai :

1 = kurang 2 = cukup 3 = baik 4 = baik sekali

Questionary (nilai bisa menggunakan desimal, misal 2,5)

- | | |
|--|-----------------|
| 1. Tampilan program aplikasi | poin = <u>2</u> |
| 2. Kemudahan pemakaian program aplikasi | poin = <u>2</u> |
| 3. Kelengkapan fasilitas yang digunakan dalam dalam program aplikasi | poin = <u>3</u> |

II. Bandingkan nada -- nada yang dihasilkan oleh program aplikasi dengan nada -- nada dari alat musik yang asli.

- Hasil Tidak sumbang / sama sumbang

- Alat musik yang digunakan : MELODION

III. Bunyi yang dihasilkan .

Poin nilai :

1 = jelek 2 = cukup 3 = baik 4 = baik sekali

Hasil (bisa menggunakan poin desimal, misal 2,5)

- | | |
|---------------------|-------------------|
| 1. Alat musik | poin = <u>2,5</u> |
| 2. Program aplikasi | poin = <u>1,5</u> |

IV. Saran -- saran untuk pengembangan program aplikasi ini :

1. Setelah penulisan sebuah nada sebaiknya langsung / otomatis diberi spasi untuk lebih memudahkan (tidak perlu rata kanan) . jika menekan tombol "-" (1/8) otomatis spasi nya dihilangkan .
2. Penulisan nada terlalu panjang, lebih baik jika terdapat sebuah tombol mis: Enter untuk "memunggal" / menulis di barunya .

Contoh :

1 2 3 4 5 6 7 1t ; 2t 3t 4t 5t 6t 7t 1r / 2r

dpt ditulis :

1 2 3 4 ; 5 6 7 1t ;

**ANGKET PENGUJIAN PERANGKAT LUNAK
UNTUK APLIKASI MUSIK KOMPUTER**

I. Tampilan Program dan Kemudahan Pemakaian

Poin nilai :

1 = kurang 2 = cukup 3 = baik 4 = baik sekali

Questionary (nilai bisa menggunakan desimal , misal 2,5)

- | | |
|--|-------------------|
| 1. Tampilan program aplikasi | poin = <u>2</u> |
| 2. Kemudahan pemakaian program aplikasi | poin = <u>3</u> |
| 3. Kelengkapan fasilitas yang digunakan dalam dalam program aplikasi | poin = <u>3,5</u> |

II. Bandingkan nada – nada yang dihasilkan oleh program aplikasi dengan nada – nada dari alat musik yang asli.

- Hasil Tidak sunbang / sama sunbang

- Alat musik yang digunakan : Pianika

III. Bunyi yang dihasilkan .

Poin nilai :

1 = jelek 2 = cukup 3 = baik 4 = baik sekali

Hasil (bisa menggunakan poin desimal, misal 2,5)

- | | |
|---------------------|-------------------|
| 1. Alat musik | poin = <u>2,5</u> |
| 2. Program aplikasi | poin = <u>2</u> |

IV. Saran – saran untuk pengembangan program aplikasi ini :

- Kalau bisa suara dibuat seperti suara alat musik asli spt piano, gitar dll
- Tampilan Visual diperbagus

**ANGKET PENGUJIAN PERANGKAT LUNAK
UNTUK APLIKASI MUSIK KOMPUTER**

I. Tampilan Program dan Kemudahan Pemakaian

Poin nilai :

1 = kurang 2 = cukup 3 = baik 4 = baik sekali

Questionary (nilai bisa menggunakan desimal , misal 2,5)

- | | |
|--|-----------------|
| 1. Tampilan program aplikasi | poin = <u>1</u> |
| 2. Kemudahan pemakaian program aplikasi | poin = <u>3</u> |
| 3. Kelengkapan fasilitas yang digunakan dalam dalam program aplikasi | poin = <u>3</u> |

II. Bandingkan nada – nada yang dihasilkan oleh program aplikasi dengan nada – nada dari alat musik yang asli.

- Hasil Tidak sumbang / sama sumbang

- Alat musik yang digunakan : *Keyboard*

III. Bunyi yang dihasilkan .

Poin nilai :

1 = jelek 2 = cukup 3 = baik 4 = baik sekali

Hasil (bisa menggunakan poin desimal, misal 2,5)

- | | |
|---------------------|-------------------|
| 1. Alat musik | poin = <u>3</u> |
| 2. Program aplikasi | poin = <u>2,1</u> |

IV. Saran – saran untuk pengembangan program aplikasi ini :

- Tampilan diperbaiki agar lebih menarik.
- Suara dikawatirkan melalui soundcard agar kualitas suara lebih bagus dan dibuat berbagai macam suara misalnya piano, flute, gitar d.s.b.

**ANGKET PENGUJIAN PERANGKAT LUNAK
UNTUK APLIKASI MUSIK KOMPUTER**

I. Tampilan Program dan Kemudahan Pemakaian

Poin nilai :

1 = kurang 2 = cukup 3 = baik 4 = baik sekali

Questionary (nilai bisa menggunakan desimal, misal 2,5)

1. Tampilan program aplikasi poin = 2,75
2. Kemudahan pemakaian program aplikasi poin = 2,5
3. Kelengkapan fasilitas yang digunakan dalam
dalam program aplikasi poin = 3

II. Bandingkan nada – nada yang dihasilkan oleh program aplikasi dengan nada – nada dari alat musik yang asli.

- Hasil Tidak sumbang / sama sumbang

- Alat musik yang digunakan : Pianika

III. Bunyi yang dihasilkan .

Poin nilai :

1 = jelek 2 = cukup 3 = baik 4 = baik sekali

Hasil (bisa menggunakan poin desimal, misal 2,5)

1. Alat musik poin = 2,5
2. Program aplikasi poin = 3

IV. Saran – saran untuk pengembangan program aplikasi ini :

- Untuk pengembangan tampilan akan lebih baik jika dibuat pull down menu & kompatibel dengan mouse
- Kalau bisa digunakan bahasa pemrograman yang tingkatannya lebih tinggi seperti Pascal, C++ dll.

```

                                END SELECT
                                END SELECT

                                END SELECT
                                NEXT
                                END SUB

SUB nilaiAwal
j = 1
MaxRow = INT(maxkar / kolom)
x = 0: y = 0: Brs = 1
i = kolom + 1
akhir = kolom + 1

tempo$ = "t120"
file$ = "NoName.nd"
brm$ = "3/4"
birama$ = "MS"
B = 3

CALL kosong

huruf$(0) = "M": huruf$(1) = "S"
huruf$(10) = "t": huruf$(11) = "1": huruf$(12) = "2":
huruf$(13) = "0"
huruf$(akhir + 2) = "*"
CALL cari
END SUB

SUB posisi
    COLOR 0, 15
    IF i <= 0 THEN i = 0
    IF i >= kolom THEN
        y = INT(i / kolom) + y1

        IF y >= 20 THEN y = 20
        Brs = INT(i / kolom) + 1
    ELSE
        Brs = 1
        y = y1
    END IF
    x = (i MOD kolom) + x1
    LOCATE y, x, 1
END SUB

```

```

SUB salahbuka
  file$ = F1$

  VIEW PRINT 11 TO 20
  COLOR 15, 1: CLS
  VIEW PRINT 1 TO 25

  CALL layar
  CALL Tampil
  CALL menubawah
  CALL posisi
END SUB

SUB simpan
  CALL menu
  n = 0
  j = 0
  OPEN file$ FOR OUTPUT AS #1
  DO
    n = j
    PRINT #1, huruf$(j)
    j = j + 1
  LOOP UNTIL huruf$(n) = "*" OR n >= maxkar
  CLOSE
END SUB

SUB sisipBirama
  DIM k$(maxkar)

  FOR j = 0 TO maxkar
    k$(j) = " "
  NEXT

  CALL cari
  FOR j = 0 TO akhir
    k$(j) = huruf$(j)
  NEXT

  huruf$(i) = "~"
  huruf$(i + 1) = "|"
  huruf$(i + 2) = "~"
  FOR j = i TO akhir
    IF k$(j) = "|" THEN k$(j) = "~"
    huruf$(j + 3) = k$(j)
  
```



```
    NEXT
END SUB
```

```
SUB Tampil
  i = kolom + 1
  CALL cari
  CALL layar

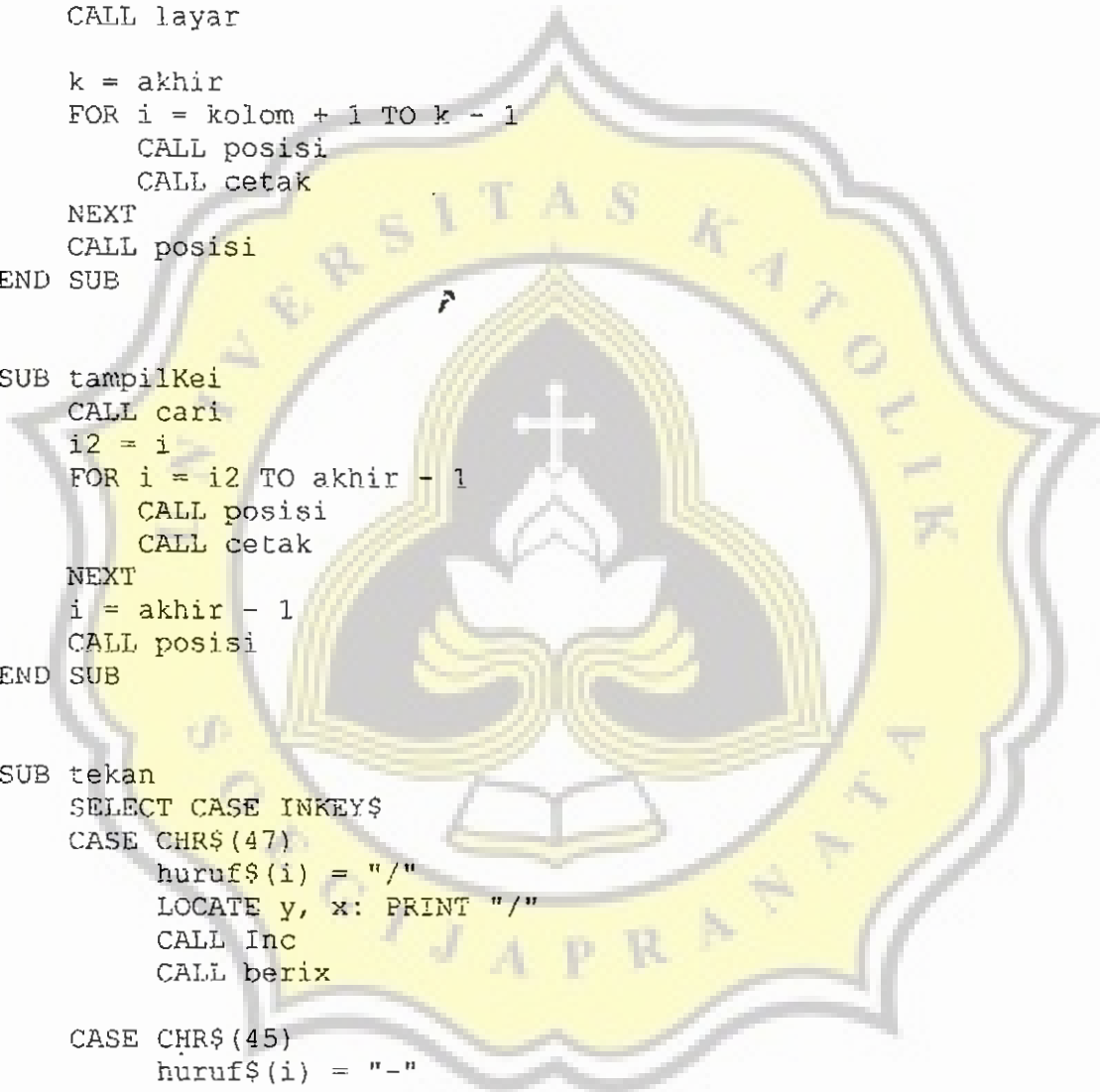
  k = akhir
  FOR i = kolom + 1 TO k - 1
    CALL posisi
    CALL cetak
  NEXT
  CALL posisi
END SUB
```

```
SUB tampilKei
  CALL cari
  i2 = i
  FOR i = i2 TO akhir - 1
    CALL posisi
    CALL cetak
  NEXT
  i = akhir - 1
  CALL posisi
END SUB
```

```
SUB tekan
  SELECT CASE INKEY$
  CASE CHR$(47)
    huruf$(i) = "/"
    LOCATE y, x: PRINT "/"
    CALL Inc
    CALL berix

  CASE CHR$(45)
    huruf$(i) = "-"
    LOCATE y, x: PRINT "-"
    CALL Inc
    CALL berix

  CASE CHR$(114)
    huruf$(i) = "r"
    LOCATE y, x: PRINT "r"
```



```
CALL Inc
CALL berix

CASE CHR$(116)
huruf$(i) = "t"
LOCATE y, x: PRINT "t"
CALL Inc
CALL berix

CASE CHR$(46)
huruf$(i) = "."
LOCATE y, x: PRINT "."
CALL Inc
CALL berix

CASE CHR$(48)
huruf$(i) = "0"
LOCATE y, x: PRINT "0"
CALL Inc
CALL berix

CASE CHR$(49)
huruf$(i) = "1"
LOCATE y, x: PRINT "1"
CALL Inc
CALL berix

CASE CHR$(50)
huruf$(i) = "2"
LOCATE y, x: PRINT "2"
CALL Inc
CALL berix

CASE CHR$(51)
huruf$(i) = "3"
LOCATE y, x: PRINT "3"
CALL Inc
CALL berix

CASE CHR$(52)
huruf$(i) = "4"
LOCATE y, x: PRINT "4"
CALL Inc
CALL berix

CASE CHR$(53)
huruf$(i) = "5"
```

