

APPENDIX

CODING

```
320<?php
321$conn = mysqli_connect("localhost","root","","breathsensor");
322$result = mysqli_query($conn,"SELECT * FROM dht11 ORDER BY id ASC LIMIT
    1000");
323$i = 0;
324foreach($result as $value){
325    if($i > 1000 ) {
326        break;
327    }
328    $rate = rand(10,30);
329    if($i > 500) {
330        $healthy = "";
331    } else {
332        if($rate>=12 && $rate<=20) {
333            $healthy = "YES";
334        } else {
335            $healthy = "NO";
336        }
337    }
338    if($value["rate"] != 0){
339        break;
340    }
341    $id = $value['id'];
342    mysqli_query($conn, "UPDATE dht11 SET rate = $rate, healthy =
    '$healthy' WHERE id = $id");
343    $i++;
344    // mysqli_query($conn, "UPDATE dht11 SET healthy = $healthy WHERE
    id = $id");
345}
346$result = mysqli_query($conn,"SELECT * FROM dht11 ORDER BY id ASC LIMIT
    1000");
347
348// print_r($result);die();
349// while($mhs = mysqli_fetch_assoc($result)) {
350// var_dump($mhs);
351// }
352
353?>
354<!DOCTYPE html>
355<html lang="en">
356<head>
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357 <title>Breath Sensor</title>
358</head>
359<body>
360
361<h1>Data Sensor</h1>
362<table border="1" cellpadding="10" cellspacing="0">
363   <tr>
364       <th>No. </th>
365       <th>Humidity</th>
366       <th>Temperature</th>
367       <th>Rate</th>
368       <th>Date</th>
369       <th>Healthy</th>
370   </tr>
371   <?php
372       $h['58']=0;
373       $h['57']=0;
374       $h['56']=0;
375       $h['55']=0;
376
377       $h['y58']=0;
378       $h['y57']=0;
379       $h['y56']=0;
380       $h['y55']=0;
381
382       $h['n58']=0;
383       $h['n57']=0;
384       $h['n56']=0;
385       $h['n55']=0;
386
387       $t['30']=0;
388       $t['30.1']=0;
389       $t['30.2']=0;
390
391       $t['y30']=0;
392       $t['y30.1']=0;
393       $t['y30.2']=0;
394
395       $t['n30']=0;
396       $t['n30.1']=0;
397       $t['n30.2']=0;
398
399       $r['remaja']=0;
400       $r['10thn']=0;
401       $r['bayi']=0;

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402
403     $r['nremaja']=0;
404     $r['n10thn']=0;
405     $r['nbayi']=0;
406
407     $r['yremaja']=0;
408     $r['y10thn']=0;
409     $r['ybayi']=0;
410
411     $r["NO"]=0;
412     $r["YES"]=0;
413
414     $t["NO"]=0;
415     $t["YES"]=0;
416
417     $h["NO"]=0;
418     $h["YES"]=0;
419
420     $n2 = 0;
421     $y2 = 0;
422
423     $n = 0;
424     $y = 0;
425
426     $urut = 1;
427
428     while ($row = mysqli_fetch_assoc($result)) : ?>
429     <tr>
430         <td><?php echo $a = $urut; ?></td>
431         <td><?php echo $b = $row["humidity"]; ?></td>
432         <td><?php echo $c = $row["temperature"]; ?></td>
433         <td><?php echo $i = $row["rate"];?></td>
434         <td><?php echo $d = $row["date"]; ?></td>
435         <td><?php echo $e = $row["healthy"];?></td>
436     </tr>
437     <?php
438     if(($y2 + $n2) < 450){
439         if($e == "YES") {
440             $y2++;
441         } else {
442             $n2++;
443         }
444     }
445     if(($y + $n) < 500){
446         if($e == "YES") {

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447         $y++;
448         $h["YES"]++;
449         $t["YES"]++;
450         $r["YES"]++;
451     } else {
452         $n++;
453         $h["NO"]++;
454         $t["NO"]++;
455         $r["NO"]++;
456     }
457 }
458
459 if($surut > 500){
460     $sisal[] = $row;
461 }
462
463 $surut++;
464 endwhile;
465 $jumlahdata = (($n + $y) * 0.9);
466?>
467</table>
468<br>
469<table border="1" cellpadding="10" cellspacing="0">
470     <tr>
471         <th>NO</th>
472         <th>YES</th>
473         <th>Total Data</th>
474     </tr>
475     <tr>
476         <td><?php echo $n; ?></td>
477         <td><?php echo $y; ?></td>
478         <td><?php echo $n+$y; ?></td>
479     </tr>
480</table>
481<br>
482<?php
483$songko = 0;
484foreach($result as $testdata) {
485     if($songko < 450) {
486         $strain[] = $testdata;
487     }else {
488         $test[] = $testdata;
489     }
490     $songko++;
491     if($songko > 500){

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492     break;
493 }
494}
495?>
496<h1><i> Training Data 1 </i></h1>
497<table border="1" cellpadding="10" cellspacing="0">
498     <tr>
499         <th>P|NO</th>
500         <th>P|YES</th>
501         <th>NO</th>
502         <th>YES</th>
503         <th>Data Train</th>
504         <th>Data Test</th>
505     </tr>
506     <tr>
507         <td><?php echo $pNo450 = $n2/((($n+$y)*0.9); ?></td>
508         <td><?php echo $pYes450 = $y2/((($n+$y)*0.9); ?></td>
509         <td><?php echo $n2 ; ?></td>
510         <td><?php echo $y2 ; ?></td>
511         <td><?php echo ((($n+$y)*0.9); ?></td>
512         <td><?php echo ((($n+$y)*0.1); ?></td>
513     </tr>
514</table>
515<br>
516<?php
517     foreach($strain as $isi) {
518         if($isi['humidity'] == 58){
519             if($isi['healthy'] == "YES"){
520                 $h['y58']++;
521             }else{
522                 $h['n58']++;
523             }
524         }elseif($isi['humidity'] == 57){
525             if($isi['healthy'] == "YES"){
526                 $h['y57']++;
527             }else{
528                 $h['n57']++;
529             }
530         }elseif($isi['humidity'] == 56){
531             if($isi['healthy'] == "YES"){
532                 $h['y56']++;
533             }else{
534                 $h['n56']++;
535             }
536         }elseif($isi['humidity'] == 55){

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537     if($isi['healthy'] == "YES"){
538         $h['y55']++;
539     }else{
540         $h['n55']++;
541     }
542 }
543}
544?>
545<table border="1" cellpadding="10" cellspacing="0">
546     <tr>
547         <th>HUMIDITY,58|NO</th>
548         <th>HUMIDITY,58|YES</th>
549         <th>HUMIDITY,57|NO</th>
550         <th>HUMIDITY,57|YES</th>
551         <th>HUMIDITY,56|NO</th>
552         <th>HUMIDITY,56|YES</th>
553         <th>HUMIDITY,55|NO</th>
554         <th>HUMIDITY,55|YES</th>
555     </tr>
556     <tr>
557         <td><?php echo $h["n58"]; ?></td>
558         <td><?php echo $h["y58"]; ?></td>
559         <td><?php echo $h["n57"]; ?></td>
560         <td><?php echo $h["y57"]; ?></td>
561         <td><?php echo $h["n56"]; ?></td>
562         <td><?php echo $h["y56"]; ?></td>
563         <td><?php echo $h["n55"]; ?></td>
564         <td><?php echo $h["y55"]; ?></td>
565     </tr>
566</table>
567<br>
568<?php
569     foreach($strain as $isi) {
570         if($isi['temperature'] == 30){
571             if($isi['healthy'] == "YES"){
572                 $t['y30']++;
573             }else{
574                 $t['n30']++;
575             }
576         }elseif($isi['temperature'] == 30.1){
577             if($isi['healthy'] == "YES"){
578                 $t['y30.1']++;
579             }else{
580                 $t['n30.1']++;
581             }

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582     }elseif($isi['temperature'] == 30.2){
583         if($isi['healthy'] == "YES"){
584             $t['y30.2']++;
585         }else{
586             $t['n30.2']++;
587         }
588     }
589 }
590?>
591<table border="1" cellpadding="10" cellspacing="0">
592     <tr>
593         <th>TEMPERATURE, 30|NO</th>
594         <th>TEMPERATURE, 30|YES</th>
595         <th>TEMPERATURE, 30.1|NO</th>
596         <th>TEMPERATURE, 30.1|YES</th>
597         <th>TEMPERATURE, 30.2|NO</th>
598         <th>TEMPERATURE, 30.2|YES</th>
599     </tr>
600     <tr>
601         <td><?php echo $t["n30"]; ?></td>
602         <td><?php echo $t["y30"]; ?></td>
603         <td><?php echo $t["n30.1"]; ?></td>
604         <td><?php echo $t["y30.1"]; ?></td>
605         <td><?php echo $t["n30.2"]; ?></td>
606         <td><?php echo $t["y30.2"]; ?></td>
607     </tr>
608</table>
609<br>
610<?php
611     foreach($strain as $isi) {
612         if($isi['rate'] >= 12 && $isi['rate'] <=18){
613             if($isi['healthy'] == "YES"){
614                 $r['yremaja']++;
615             }else{
616                 $r['nremaja']++;
617             }
618         }elseif($isi['rate'] >= 19 && $isi['rate'] <= 29){
619             if($isi['healthy'] == "YES"){
620                 $r['y10thn']++;
621             }else{
622                 $r['n10thn']++;
623             }
624         }elseif($isi['rate'] >=30 && $isi['rate'] <= 60){
625             if($isi['healthy'] == "YES"){
626                 $r['ybayi']++;

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627         }else{
628             $r['nbayi']++;
629         }
630     }
631 }
632?>
633<table border="1" cellpadding="10" cellspacing="0">
634     <tr>
635         <th>RATE,remaja|NO</th>
636         <th>RATE,remaja|YES</th>
637         <th>RATE,10Thn|NO</th>
638         <th>RATE,10Thn|YES</th>
639         <th>RATE,bayi|NO</th>
640         <th>RATE,bayi|YES</th>
641     </tr>
642     <tr>
643         <td><?php echo $r["nremaja"]; ?></td>
644         <td><?php echo $r["yremaja"]; ?></td>
645         <td><?php echo $r["n10thn"]; ?></td>
646         <td><?php echo $r["y10thn"]; ?></td>
647         <td><?php echo $r["nbayi"]; ?></td>
648         <td><?php echo $r["ybayi"]; ?></td>
649     </tr>
650</table>
651<br>
652<table border="1" cellpadding="10" cellspacing="0">
653     <tr>
654         <th>P|Humidity,58|NO</th>
655         <th>P|Humidity,58|YES</th>
656         <th>P|Humidity,57|NO</th>
657         <th>P|Humidity,57|YES</th>
658         <th>P|Humidity,56|NO</th>
659         <th>P|Humidity,56|YES</th>
660         <th>P|Humidity,55|NO</th>
661         <th>P|Humidity,55|YES</th>
662     </tr>
663     <tr>
664         <td><?php echo $p58n = $h["n58"]/$n2; ?></td>
665         <td><?php echo $p58y = $h["y58"]/$y2; ?></td>
666         <td><?php echo $p57n = $h["n57"]/$n2; ?></td>
667         <td><?php echo $p57y = $h["y57"]/$y2; ?></td>
668         <td><?php echo $p56n = $h["n56"]/$n2; ?></td>
669         <td><?php echo $p56y = $h["y56"]/$y2; ?></td>
670         <td><?php echo $p55n = $h["n55"]/$n2; ?></td>
671         <td><?php echo $p55y = $h["y55"]/$y2; ?></td>

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672     </tr>
673</table>
674<br>
675<table border="1" cellpadding="10" cellspacing="0">
676     <tr>
677         <th>P|Temperature, 30|NO</th>
678         <th>P|Temperature, 30|YES</th>
679         <th>P|Temperature, 30.1|NO</th>
680         <th>P|Temperature, 30.1|YES</th>
681         <th>P|Temperature, 30.2|NO</th>
682         <th>P|Temperature, 30.2|YES</th>
683     </tr>
684     <tr>
685         <td><?php echo $p30n = $t["n30"]/$n2; ?></td>
686         <td><?php echo $p30y = $t["y30"]/$y2; ?></td>
687         <td><?php echo $p301n = $t["n30.1"]/$n2; ?></td>
688         <td><?php echo $p301y = $t["y30.1"]/$y2; ?></td>
689         <td><?php echo $p302n = $t["n30.2"]/$n2; ?></td>
690         <td><?php echo $p302y = $t["y30.2"]/$y2; ?></td>
691     </tr>
692</table>
693<br>
694<table border="1" cellpadding="10" cellspacing="0">
695     <tr>
696         <th>P|Rate, Remaja|NO</th>
697         <th>P|Rate, Remaja|YES</th>
698         <th>P|Rate, 10Thn|NO</th>
699         <th>P|Rate, 10Thn|YES</th>
700         <th>P|Rate, Bayi|NO</th>
701         <th>P|Rate, Bayi|YES</th>
702     </tr>
703     <tr>
704         <td><?php echo $pRemajaN = $r["nremaja"]/$n2; ?></td>
705         <td><?php echo $pRemajaY = $r["yremaja"]/$y2; ?></td>
706         <td><?php echo $p10ThnN = $r["n10thn"]/$n2; ?></td>
707         <td><?php echo $p10ThnY = $r["y10thn"]/$y2; ?></td>
708         <td><?php echo $pBayiN = $r["nbayi"]/$n2; ?></td>
709         <td><?php echo $pBayiY = $r["ybayi"]/$y2; ?></td>
710     </tr>
711</table>
712<br>
713<h2>Test Data Pertama</h2>
714<table border="1" cellpadding="10" cellspacing="0">
715     <tr>
716         <th>No</th>

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717     <th>Humidity</th>
718     <th>Temperature</th>
719     <th>Rate</th>
720     <th>Hasil YES</th>
721     <th>Hasil NO</th>
722     <th>P|Hasil YES</th>
723     <th>P|Hasil NO</th>
724     <th>Healthy</th>
725     <th>PREDIKSI</th>
726     <th>Perbandingan</th>
727 </tr>
728
729 <?php
730 $urut=0;
731 $tp=0;
732 $tn=0;
733 $fp=0;
734 $fn=0;
735 foreach($test as $isi):
736     $hasiln = 0;
737     $hasily = 0;
738
739     if($isi['humidity'] == 58){
740         $hasily+= $p58y;
741         $hasiln+= $p58n;
742     }elseif($isi['humidity'] == 57){
743         $hasily+= $p57y;
744         $hasiln+= $p57n;
745     }elseif($isi['humidity'] == 56){
746         $hasily+= $p56y;
747         $hasiln+= $p56n;
748     }elseif($isi['humidity'] == 55){
749         $hasily+= $p55y;
750         $hasiln+= $p55n;
751     }
752
753     if($isi['temperature'] == 30){
754         $hasily*= $p30y;
755         $hasiln*= $p30n;
756     }elseif($isi['temperature'] == 30.1){
757         $hasily*= $p301y;
758         $hasiln*= $p301n;
759     }elseif($isi['temperature'] == 30.2){
760         $hasily*= $p302y;
761         $hasiln*= $p302n;

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762     }
763
764     if($isi['rate'] >= 12 && $isi['rate'] <=18){
765         $hasily*=$pRemajaY;
766         $hasiln*=$pRemajaN;
767     }elseif($isi['rate'] >= 19 && $isi['rate'] <= 29){
768         $hasily*=$p10ThnY;
769         $hasiln*=$p10ThnN;
770     }elseif($isi['rate'] >=30 && $isi['rate'] <= 60){
771         $hasily*=$pBayiY;
772         $hasiln*=$pBayiN;
773     }
774     ?>
775     <tr>
776         <td><?php echo $urut; ?></td>
777         <td><?php echo $isi['humidity']; ?></td>
778         <td><?php echo $isi['temperature']; ?></td>
779         <td><?php echo $isi['rate']; ?></td>
780         <td><?php echo $hasily; ?></td>
781         <td><?php echo $hasiln; ?></td>
782         <td><?php echo $hslYes = $hasily * $pYes450; ?></td>
783         <td><?php echo $hslNo = $hasiln * $pNo450; ?></td>
784         <td><?php echo $isi['healthy']; ?></td>
785         <td><?php if($hslYes > $hslNo){ echo "YES";}else{ echo "NO";}
?></td>
786     <td>
787     <?php
788         if($hslYes > $hslNo){
789             // YES
790             if($isi['healthy'] == "YES"){
791                 echo "TP";
792                 $tp++;
793             }else{
794                 echo "FN";
795                 $fn++;
796             }
797         }else{
798             // NO
799             if($isi['healthy'] == "NO"){
800                 echo "TN";
801                 $tn++;
802             }else{
803                 echo "FP";
804                 $fp++;
805             }

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806         }
807     ?>
808     </td>
809 </tr>
810
811 <?php $urut++; endforeach; ?>
812</table>
813<br>
814<h2>Confussion Matrix Traning Data 1</h2>
815<table border="1" cellpadding="10" cellspacing="0">
816     <tr>
817         <th>TP</th>
818         <th>TN</th>
819         <th>FP</th>
820         <th>FN</th>
821     </tr>
822     <tr>
823         <td><?=$tp; ?></td>
824         <td><?=$tn; ?></td>
825         <td><?=$fp; ?></td>
826         <td><?=$fn; ?></td>
827     </tr>
828</table>
829<br>
830<h2>Accuracy Score Traning Data 1</h2>
831<table border="1" cellpadding="10" cellspacing="0">
832     <tr>
833         <th>Accuracy</th>
834         <th>Precision</th>
835         <th>Recall</th>
836         <th>F1 Score</th>
837     </tr>
838     <tr>
839         <td><?=$accuracy = ($tp + $tn) / ($tp+$fp+$fn+$tn); ?></td>
840         <td><?=$precision = $tp / ($tp+$fp); ?></td>
841         <td><?=$recall = $tp / ($tp+$fn); ?></td>
842         <td><?=$f1 = 2 * ($recall*$precision) / ($recall + $precision);
            ?></td>
843     </tr>
844</table>
845<br>
846<h2>Prediksi Data</h2>
847<table border="1" cellpadding="10" cellspacing="0">
848     <tr>
849         <th>No. </th>

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```

850     <th>Humidity</th>
851     <th>Temperature</th>
852     <th>Rate</th>
853     <th>Date</th>
854     <th>P|YES</th>
855     <th>P|NO</th>
856     <th>Healthy</th>
857 </tr>
858
859 <?php
860     $urut=1;
861     foreach($sisas as $isi) :
862         $hasiln = 0;
863         $hasily = 0;
864
865         if($isi['humidity'] == 58){
866             $hasily+= $p58y;
867             $hasiln+= $p58n;
868         }elseif($isi['humidity'] == 57){
869             $hasily+= $p57y;
870             $hasiln+= $p57n;
871         }elseif($isi['humidity'] == 56){
872             $hasily+= $p56y;
873             $hasiln+= $p56n;
874         }elseif($isi['humidity'] == 55){
875             $hasily+= $p55y;
876             $hasiln+= $p55n;
877         }
878
879         if($isi['temperature'] == 30){
880             $hasily*= $p30y;
881             $hasiln*= $p30n;
882         }elseif($isi['temperature'] == 30.1){
883             $hasily*= $p301y;
884             $hasiln*= $p301n;
885         }elseif($isi['temperature'] == 30.2){
886             $hasily*= $p302y;
887             $hasiln*= $p302n;
888         }
889
890         if($isi['rate'] >= 12 && $isi['rate'] <=18){
891             $hasily*= $pRemajaY;
892             $hasiln*= $pRemajaN;
893         }elseif($isi['rate'] >= 19 && $isi['rate'] <= 29){
894             $hasily*= $p10ThnY;

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895         $hasiln*= $p10ThnN;
896     }elseif($isi['rate'] >=30 && $isi['rate'] <= 60){
897         $hasily*= $pBayiY;
898         $hasiln*= $pBayiN;
899     }
900     ?>
901     <tr>
902         <td><?php echo $surut; ?></td>
903         <td><?php echo $isi["humidity"]; ?></td>
904         <td><?php echo $isi["temperature"]; ?></td>
905         <td><?php echo $isi["rate"];?></td>
906         <td><?php echo $isi["date"]; ?></td>
907         <td><?php echo $hslYes = $hasily * $pYes450; ?></td>
908         <td><?php echo $hslNo = $hasiln * $pNo450; ?></td>
909         <td><?php if(($hslYes) > ($hslNo)){ echo $healthy =
"YES";}else{ echo $healthy = "NO";} ?></td>
910     </tr>
911<?php
912     $id = $isi['id'];
913     mysqli_query($conn, "UPDATE dht11 SET healthy = '$healthy' WHERE id
= $id");
914
915     $surut++; if($surut>500){break;} endforeach;
916?>
917</table>
918</body>
</html>

```

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18.K1.0010.docx

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6924 Words

CHARACTER COUNT

34727 Characters

PAGE COUNT

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