

CHAPTER 4

ANALYSIS AND DESIGN

4.1. Analysis

This research uses several problem solving methods. One of them is the Trial and Error testing method. This method is used to perform Software Testing of programs that have been created. The Trial and Error testing method itself is a basic method of solving problems that exist in a program. In general, this method is used to find a solution to a problem in the program that has been created. For problems or errors that exist will be recorded and evaluated to be a learning material. This can be useful for developers because it can help to find problems that exist in the program or software that is made.

Currently, the use of the trial and error testing method is quite attractive to many large companies. As an example, the problem taken in software testing at PT. Hartono Istana Teknologi. Before the new software is launch, it must be tested to known where any error existed in the new software. After testing the software using the trial and error method, the errors found will be recorded. After the testing is completed. the recording results will be given to the developer. The next step is to wait for the results of the software program improvements that have been tested from the developer. Upon completion, the developer will provide the corrected software program for retesting. The next step is the same as the first step, namely re-testing the software on the corrected program. To assess whether the program is feasible or ready to run, it can be judged according to the concept or design that has been made and also in accordance with the specified validation.

The second test method is Integration Testing. Integration Testing itself is a testing method to combine units/components of the application or software being tested. Integration testing is used after unit testing is complete and before system testing

is performed. Testing with the Integration testing method can be used on software that has many menus. as in PT. Hartono Technology Palace. This test is tried to be applied to existing software programs, to find several interconnected menus.

There is a test case as the testing phase of this software. The test case itself is a design in the form of actions taken by the user to verify certain features or functions of a software. The testing actions are carried out as follows.

Table 4.1 Test Case.

No	Deskripsi Pengujian	Hasil yang diharapkan
01	Pencarian menu dengan search bar	Bisa memunculkan hasil sesuai dengan code yang dimasukkan
02	Saat klik tombol Filter Data maka muncul menu input Filter Data	Bisa memunculkan menu input Filter Data
03	Saat klik tombol search maka akan mencari hal yang diinginkan	Bisa memunculkan hasil sesuai dengan inputan
04	Saat klik tombol Search help maka akan muncul menu tampilan data	Bisa menampilkan daftar list data
05	Saat klik tombol Dropdown akan membuka beberapa pilihan	Bisa menampilkan beberapa pilihan dengan format kebawah

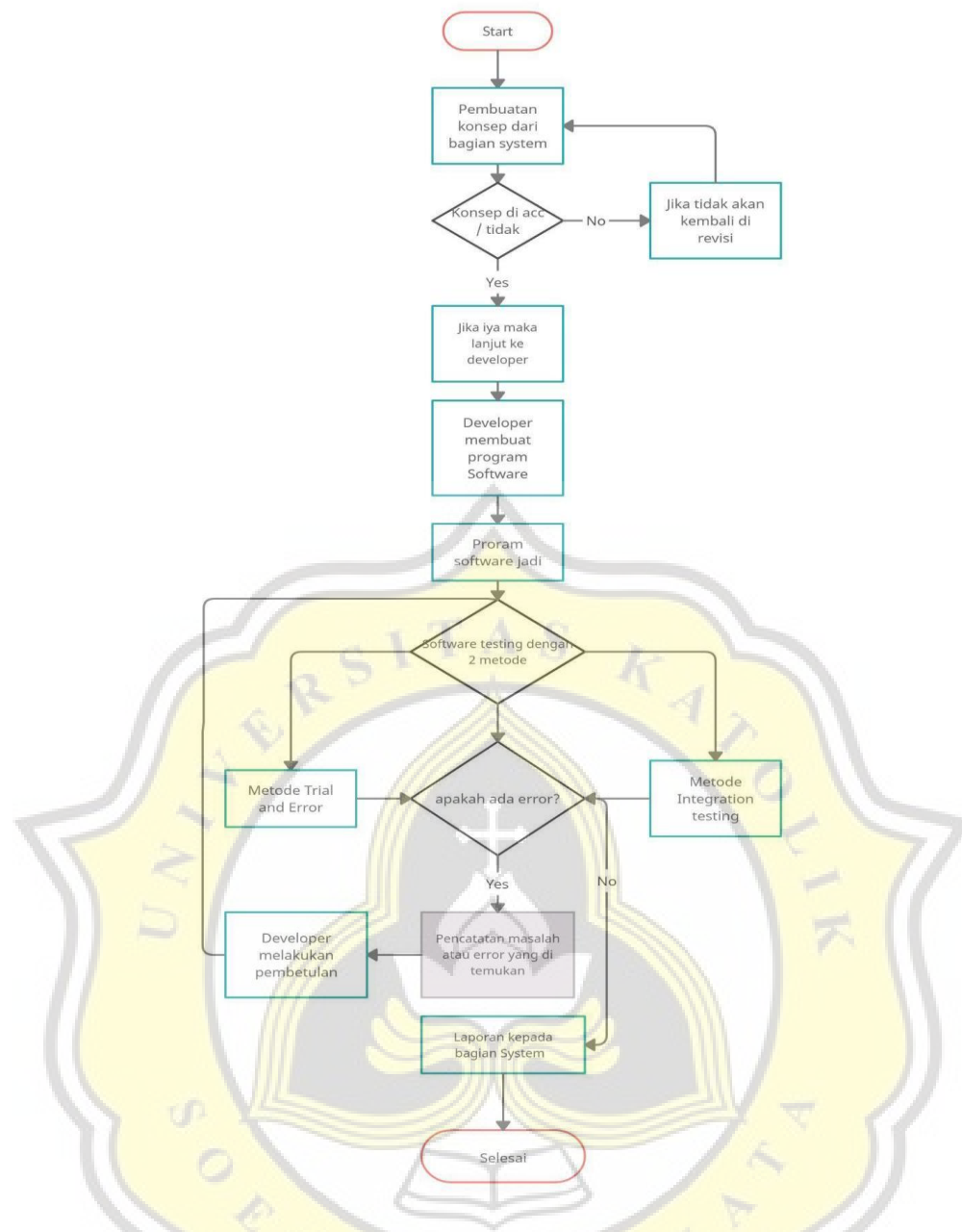
06	Saat mengisi Date akan membuka tampilan kalender	Bisa menampilkan dan memilih tgl/bulan/tahun yang diinginkan
07	Saat klik tombol Baru akan membuka menu untuk create data baru	Bisa menampilkan dan mengisi menu create data baru
08	Saat klik tombol Simpan akan menyimpan data baru yang sudah dibuat	Menyimpan data baru yang sudah dibuat
09	Saat klik tombol Kembali akan kembali ke tampilan atau menu awal	Bisa kembali ke tampilan atau menu awal
10	Saat klik Tombol Unggah akan memunculkan menu unggah dan mengunggah file yang sudah dipilih	Bisa menampilkan menu unggah dan mengunggah file yang sudah dipilih
11	Saat klik tombol Download akan mendownload file yang diinginkan	Bisa mendownload file yang diinginkan
12	Saat klik tombol Delete akan menghapus data yang diinginkan	Bisa menghapus data yang dipilih
13	Sengaja salah memasukan data	Keluar notifikasi tolakan yang berisi Data tidak valid

14	Sengaja salah mengupload data	Tombol unggah tetap disabled dan tidak enabled atau keluar notifikasi tolakan
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From the table above describes the stages in conducting the test. testing the menu search by entering the code, "ASM4 code, the Registration menu will appear". testing by entering filter data and can appear, "Input component stock finder data then the desired component stock display will appear".

The next table from numbers 11, testing the buttons to go back, download, upload, and delete, "when you click the back button it will return to the main menu, when you click download it will automatically download the desired file, when you click upload it will upload the file which has been created in the correct format, when you click delete, the selected file will be deleted and cannot come back again (also applies to the database)".

Then test rejection if there are incorrect data. Checking the notification was successful and an error occurred. testing the results of the data entered into the database whether the same or not. testing of each existing menu such as the service menu example, the damage diagram master menu, the spare part price master menu, the visit area registration menu and the visit service product registration menu.



Flowchart 4.1 Software testing process Flowchart.

The flowchart above explains the sequence of the software testing work process at PT. Hartono Palace of Technology. Where the first thing to do is make a concept by the system. If it is finished, the concept will be reported in advance to the manager and a meeting will be held to discuss which part is not appropriate (if it is not appropriate, it will be revised continuously). If it has been accepted, then the next step is to give the draft file that has been made to the developer to work on later. After being given to the developer, the developer will create a software program that is in accordance with the concept. Wait for the created software program to finish. If it is finished, the next step

is the software testing process of the software program that was created earlier. In the testing process there are 2 methods used, namely Trial and Error and Integration testing. If a problem is found, there will be a record of the problem and it will be returned to the developer for repair. After that proceed to software testing again to check again. If no problems are found, a report is generated that the tested software program has no errors or problems and is ready to run.

