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1. INTRODUCTION

1.1 Problem Definition

The Java Programming Test Yourself is a software to take test on JAVA Programming Language in an efficient manner and no time wasting for checking the paper. The main objective of Test Yourself is to efficiently evaluate the candidate Thoroughly through a fully automated system that not only saves lot of time but also Gives fast results. For students they give papers according to their convenience and Time and there is no need of using extra thing like paper, pen etc.

Drawbacks of Present Manual System

Some of the problems being faced in manual system are as follows:

- The inability to accommodate all students in the process can lead to incomplete, skewed feedback with a very narrow view-point.
- Students may feel that their responses are not anonymous and worry that instructors can trace the feedback to them.
- A lot of paper is needlessly wasted in the traditional evaluation process.
- A major disadvantage of using paper assessments is the high cost associated with the process.

1.2 Project Overview

This software has 3 stages Login, Test, Result. The User has to fill up only His/her name to start the TEST. The Instructions appear will on the left-Hand side of the Test Frame which specifies all the rules & process to Start and complete the online Test efficiently. If The user Press Finish Button In the middle of the test then a pop-up window shows displaying the message that “CYCLE THROUGH ALL THE QUESTIONS BEFORE PRESSING FINISH”. After pressing on Finish Button, the result of the user will display on the screen with total marks of the user out of 25 and percentage. It will also show whether the User is PASS or FAIL. If the Total Marks ≥ 15 then the User is PASS otherwise FAIL.

1.3 Specification

Features:

- Secure
- Easy to use
- Reliable and accurate
- No need of examiner
- Basic Overview of Java Programming Language.

Modules Overview:

1. Login: There is a quality login window because this is more secure than other login forms as in a normal login window there is only one login available so that only one person can access to test with his/her individual login. The User has to fill up only His/her name to start the Test.
2. Test: Test page is the most creative and important page in this project. It Consists of 2 modules:
 - I. Instructions: - The Instructions will appear will on the left-Hand side of the Test Frame which specifies all the rules & process to Start and complete the online Test efficiently.
 - II. Questions with 4 Options: - There are 25 questions in this test and 10 minutes to complete them all. Four options on the Right side also displaying no of Options to be chosen with Radio Buttons to fill the answer of the user.
3. Result: After pressing on Finish Button One more Pop up Window will appear on the Screen Displaying the Result of the User with Obtained Marks and Percentage.

1.4 Hardware Specification

- Hard Disk: 20GB
- Monitor
- Keyboard
- Mouse
- Core i5 processor

1.5 Software Specification:

- Operating System: Platform independent.
- Language: Java SE and Java EE.
- IDE- Eclipse Java 2018-12.

2. LITERATURE SURVEY

2.1 Existing System:

The existing Testing Yourself system is very traditional and manual. Most of the things such as records of the marks are recorded using pen-paper system. This traditional system requires a lot of time and manpower for performing simple operations.

The drawbacks of existing system are:

- Marks keeping is paper-based.
- The system is not computerized.
- There's high risk of data mis-management.
- Students face a lot of problem while analyzing their performance .
- A lot of paperwork and manpower is to be allocated for simple test management operations.
- The existing system is very inefficient and unreliable.
- The existing system only focus on their practical knowledge not on theory.

2.2 Proposed System:

The Java Programming Test Yourself is a software to take test on JAVA Programming Language in an efficient manner and no time wasting for checking the paper. The main objective of Test Yourself is to efficiently evaluate the candidate Thoroughly through a fully automated system that not only saves lot of time but also Gives fast results. For students they give papers according to their convenience and Time and there is no need of using extra thing like paper, pen etc. one can test their own skills from their own place.

The main feature of this system is that can be used anywhere any time as it is a system based application (user Location doesn't matter). No restriction that examiner has to be present when the candidate Takes the test.

2.3 Feasibility Study:

Whatever we think need not be feasible. It is wise to think about the feasibility of any problem we undertake. Feasibility is the study of impact, which happens in the organization by the development of a system. The impact can be either positive or negative. When the positives nominate the negatives, then the system is considered feasible. Here the feasibility study can be performed in two ways such as technical feasibility and Economical Feasibility.

Technical Feasibility:

We can strongly say that it is technically feasible, since there will not be much difficulty in getting required resources for the development and maintaining the system as well. All the resources needed for the development of the software as well as the maintenance of the same is available in the organization here we are utilizing the resources which are available already.

Economical Feasibility

Development of this application is highly economically feasible. The organization need not spend much for the development of the system already available. The only thing is to be done is making an environment for the development with an effective supervision. If we are doing so, we can attain the maximum usability of the corresponding resources. Even after the development, the organization will not be in a condition to invest more in the organization. Therefore, the system is economically feasible.

3. SYSTEM ANALYSIS AND DESIGN

3.1 Requirement Specification:

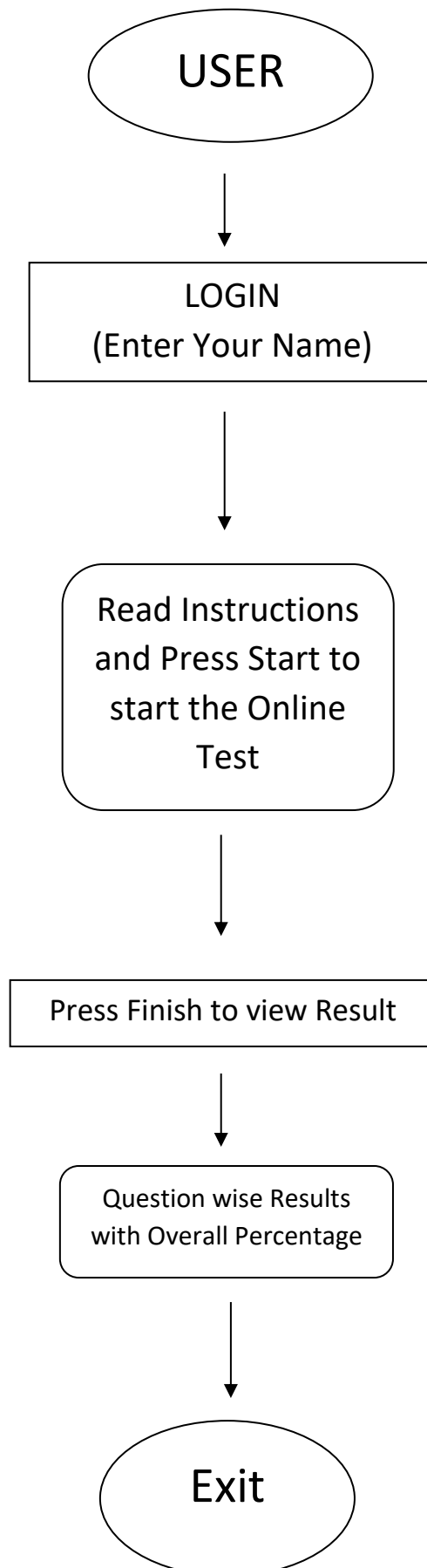
Hardware Specification

- Hard Disk: 20GB
- Monitor
- Keyboard
- Mouse
- Core i5 processor

Software Specification:

- Operating System: Platform independent.
- Language: Java SE and Java EE.
- IDE- Eclipse Java 2018-12.

3.2 FLOW CHART



3.3 Pseudo Code:

```
public void actionPerformed(ActionEvent evt){
    String source = evt.getActionCommand();
    if(source.equals("start:")){
        for(int i=0; i<boxes.length; i++)
            boxes[i].setEnabled(true);
        if(TIMELIMIT >0)
            new Timer();
        displayquestion(); }
    if(start_test){
        if(source.equals("previous:")) {
            recordanswer();
            quesnum--;
            if(quesnum == -1)
                quesnum=TOTAL-1;
            checkteststatus();
        displayquestion(); }
        if(source.equals("next:")) {
            recordanswer();
            quesnum++;
            if(quesnum == TOTAL)
                quesnum=0;
        checkteststatus();
        displayquestion(); }
        if(source.equals("finish:")) {
            if (finishtest){
                recordanswer();
                mark_ques();
                displayquestion();
                checkteststatus();
                calculateResult();}
            else
                JOptionPane.showMessageDialog(null,"Cycle through all
questions before pressing finish", "User Message",JOptionPane.INFORMATION_MESSAGE);}
        if(check_answer){
            if(source.equals("check next:")){
                quesnum++;
                if(quesnum == TOTAL)
                    quesnum = 0;
                mark_ques();
                displayquestion();
                checkteststatus();}
            if(source.equals("check previous:")){
                quesnum--;
                if(quesnum == -1)
                    quesnum = TOTAL-1;
                mark_ques();
                displayquestion();
                checkteststatus();
            }
        }
    }
}
```

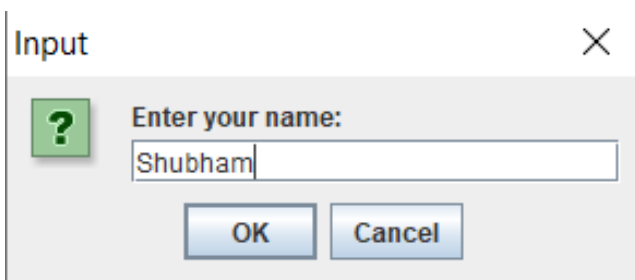
4. RESULTS

i. Splash Panel: -



- Starting window/ Splash panel.

ii. Login (Enter your Name):-

A small dialog box titled "Input" with a close button (X) in the top right corner. Inside the dialog, there is a green square icon with a white question mark. To the right of the icon is the text "Enter your name:". Below this text is a text input field containing the name "Shubham". At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

- The User has to fill up only His/her name to start the Java Programming Test Yourself. After Filling Name on textbox Press ok to see the instructions to start the Test.

iii. **Test: -**

a) Instructions to Start your Test

Java Programming Quiz

Welcome : h to Test Your Self

Java Online Test Week

INSTRUCTIONS:

There are 25 questions in this test and 25 minutes to complete them all.

The finish button is highlighted in blue when you reach the end of the test.

Clicking the finish button will display the results with the correct answers marked in light red.

The timecounter begins when you click on the 'start' button

Best of luck!

There are 25 questions in total

CHOOSE CORRECT ANSWERS

☐ A

☐ B

☐ C


☐ D

h , You have only : 10 minutes to complete.

start: previous: next: finish: check next: check previous:

- The Instructions will appear will on the left-Hand side of the Test Frame which specifies all the rules & process to Start and complete the online Test efficiently.

b) Start Test: -

 Java Programming Quiz

Welcome : Shubham to Test Your SelfQuestion 1 out of 25

Question 1:

What is the result of attempting to compile and run the following program?

```
public class JavaAppclass{  
    public static void main(String  
    args){  
        String myString =  
        "javaprograms";  
        System.out.println(myString);  
    }  
}
```

Time Counter: 0 mins : 6 secs

Choose TWO Options

☐ A It will not compile as the main method String is not an array

☐ B It will compile but there will be a runtime error if we try to run it with:-
>java JavaApp

☐ C The program is fine, but we will need another program to run it and get the output.

☐ D It will compile and run and output "java" to the screen

Shubham , You have only : 10 minutes to complete.

previous:

next:

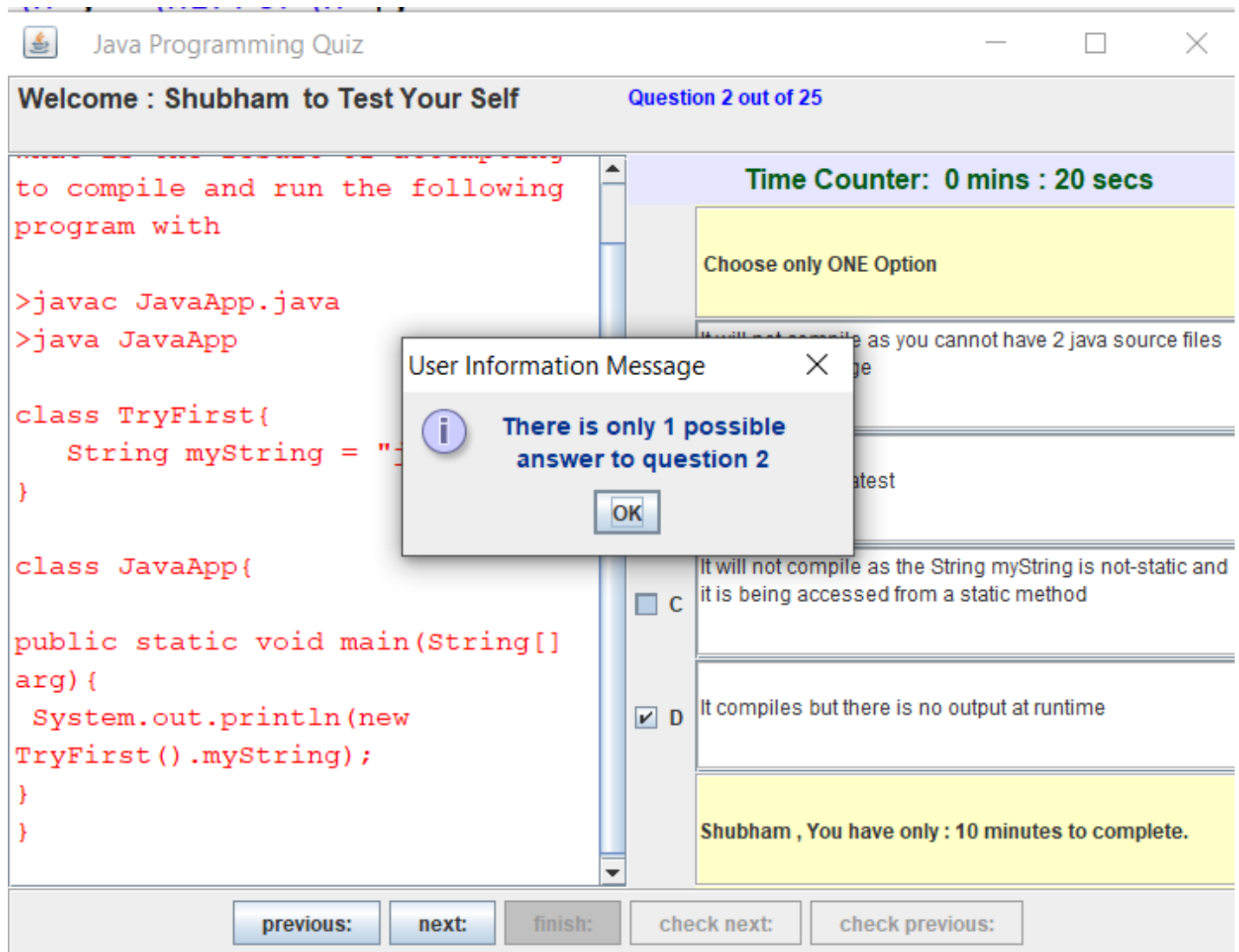
finish:

check next:

check previous:


- Process to Start and complete the online Test efficiently.

c) If User Chooses more than one Option: -



- If The user Press Finish Button In the middle of the test then a pop-up window shows displaying the message that "CYCLE THROUGH ALL THE QUESTIONS BEFORE PRESSING FINISH".

d) Finish the Test: -

 Java Programming Quiz

Welcome : Shubham to Test Your SelfQuestion 25 out of 25

Question 25:
What is the result?

```
class MyApp{
    public static void main(String[]
ar){
    for(int i=0; i<3; i++)
        for(int j=1; j<3; j++)
            System.out.print(j+i+",");
    }
}
```

Time Counter: 0 mins : 16 secs

Choose only ONE Option

☐ A 1,2,2,3,3,4

☐ B 1,2,3,3,4,6

☐ C 1,2,3,4

☐ D 0,1,1,2,2,3,3,4

Shubham , You have only : 10 minutes to complete.

previous:

next:

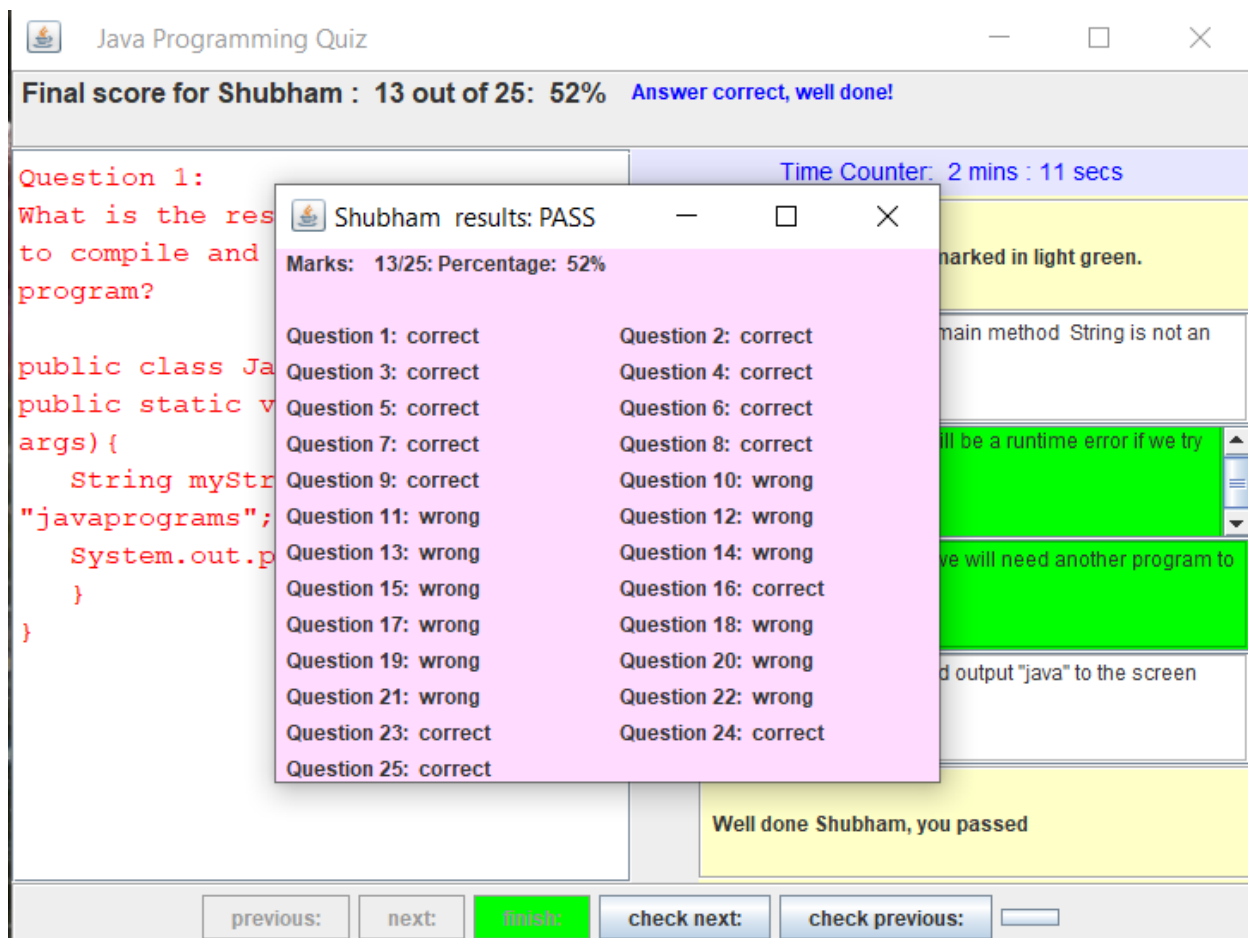
finish:

check next:

check previous:

- After completion of the cycle of 25 questions the finish button will become green and active.

IV. Final Result: -



- After pressing on Finish Button, the result of the user will display on the screen with total marks of the user out of 25 and percentage. It will also show whether the User is PASS or FAIL. If the Total Marks ≥ 15 then the User is PASS otherwise FAIL.

5. CONCLUSION

The Java Programming Quiz System is developed using Core Java which fully meets the Objectives of the system for which it has been developed. The system has reached a steady State where all bugs have been eliminated. The system is operated at a high level of efficiency and all the teachers and user associated with the system understands its advantage. The system solves the problem. It was intended to solve as requirement specification.

The Software development is a complete process of designing software from the analysis part of software from user requirements to designing, coding and finally testing the complete functioning of the software in order to certify the accuracy of the software in every aspect. It's a complete process starting from scratch to completion of the whole system.

6. Bibliography

Books:

1. The Complete Reference Java by Herbert Scheldt (Tata McGraw-Hill)
2. Head First Java by Kathy Sierra & Bert Bates.

Websites:

1. www.sun.java.com
2. <http://www.edutechlearners.com/>