Test Case Writing

1) How do we write test cases without documents or knowing the requirements?

We can go to adopt a testing technique called Exploratory Testing. According to James Bach exploratory testing is defined as "an interactive process of concurrent product exploration, test design, and test execution."

2) What are the test cases for one Rupees Coin Box (Telephone box)?

Positive test cases:

TC1: Pick up the Handset
Expected: Should display the message "Insert one rupee coin"

TC2: Insert the coin
Expected: Should display the message "Dial the Number"

TC3: When you get a busy tone, hang-up the receiver
Expected: The inserted one rupee coin comes out of the exit door.

TC4: Finish off the conversation and hang-up the receiver
Expected: The inserted coin should not come out.

TC5: During the conversation, in case of a local call, (assume the duration is of 60 sec), when 45 as are completed
Expected: It should prompt you to insert another coin to continue by giving beeps.

TC6: In the above scenario, if another coin is inserted
Expected: 60 sec will be added to the counter.

TC7: In the TC5 scenario, if you don't insert one more coin.
Expected: The call gets ended.

TC8: Pick up the receiver. Insert appropriate one rupee coin; Dial the number after hearing the ring tone. Assume it got connected and you are getting the ring tone. Immediately you end up the call.
Expected: The inserted one rupee coin comes out of the exit door.

3) Explain about Use Cases?

In software engineering, a Use Case is,

1. A technique for capturing the potential requirements of a new system or software change.
2. Each use case provides one or more scenarios that convey how the system should interact with the end user or another system to achieve a specific business goal.
3. Use cases typically avoid technical jargon, preferring instead the language of the end user or domain expert.
4. Use cases are often co-authored by software developers and end users.

4) Write test cases for Cell phone.

1) Check whether Battery is inserted into mobile properly
2) Check Switch on/Switch off of the Mobile
3) Insert the SIM into the phone n check
4) Add one user with name and phone number in Address book
5) Check the Incoming call
6) Check the outgoing call
7) Send/receive messages for that mobile
8) Check all the numbers/Characters on the phone working fine by clicking on them.
9) Remove the user from phone book and check removed properly with name and phone number
10) Check whether Network working fine.

5) Test cases for coffee machine?

1. Plug the power cable and press the on button. The indicator bulb should glow indicating the machine is on.
2. Whether there are three different buttons Red, Blue and Green.
3. Whether Red indicated Coffee.
4. Whether Blue indicated Tea.
5. Whether Green indicated Milk.
6. Whether each button produces the correct out put (Coffee, Tea or Milk).
7. Whether the desired out put is hot or not (Coffee, Tea or Milk).
8. Whether the quantity is exceeding the specified the limit of a cup.
9. Whether the power is off (including the power indicator) when pressed the off button.
10. Verify the Output without Coffee Mix, Milk, Tea Mix in the machine

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7) What are Test cases for date field validation? (Third party Calendar controls/date pickers will have a text box attached with a button/icon beside it)

You can consider the following test cases for a calendar control.
1. Ensure that calendar window is displayed and active, when the calendar is invoked by pressing the calendar icon. (Once we faced an issue, the calendar window is in minimized state when we invoked the calendar.)
2. Ensure that calendar date is defaulted to system date.
3. Ensure that when a date is selected in the calendar (double click, or some other method), the selected date is displayed in the text box.

They may be many other cases, if the text box is editable or not, purpose of the date field used etc.

8) What can be the possible test cases for the Computer Mouse?

1. To check the mouse company
2. Whether it is a PS/2, USB or serial port mouse or cordless mouse
3. It should be plugged to all the ports of different manufacturers
4. It should be platform independent.
5. Right clicking on the mouse should open the context window.
6. Double clicking on any folder should open up the file
7. Should be able to scroll up and down using the scroll button on the mouse.
8. Should be able to change the functionality of the right and left mouse by changing the settings.
9. Should be able to point to the scrollbar and then drag up and down.
10. Should always point to the right place, where it is intended to point.

9) What are GUI test cases?

GUI test cases are designed to conduct Usability Testing to verify User Friendliness of the given application with respect to look & feel, spell mistakes, the alignment & total objects availability and their access with input devices.

10) What is the difference between positive and negative test cases ?

Positive Testing = (Not showing error when not supposed to) + (Showing error when supposed to) So if either of the situations in parentheses happens you have a positive test in terms of its result – not what the test was hoping to find. The application did what it was supposed to do. Here user tends to put all positive values according to requirements.

Negative Testing = (Showing error when not supposed to) + (Not showing error when supposed to)(Usually these situations crop up during boundary testing or cause-effect testing.) Here if either of the situations in parentheses happens you have a negative test in terms of its result – again, not what the test was hoping to find. The application did what it was not supposed to do. User tends to put negative values, which may crash the application.

For example in Registration Form, for Name field, user should be allowed to enter only alphabets. Here for Positive Testing, tester will enter only alphabets and application should run properly and should accept only alphabets. For Negative Testing, in the same case user tries to enter numbers, special characters and if the case is executed successfully, negative testing is successful.

11) What is defect leakage?

Defect Leakage is also referred to as 'Defect Seepage. Defect Seepage is 'How many defects related to one particular phase is not getting captured in the same phase.
For Example: requirements related defects should be captured in Requirements review. Not in unit testing or system testing.

12) Which of the following statements about generating test cases is false?

(a) Test cases may contain multiple valid test conditions
(b) Test cases may contain multiple invalid test conditions
(c) Test cases may contain both valid and invalid test conditions
(d) Test cases may contain more than one step
(e) Test cases should contain expected results

Ans: No Statement is False

13) Write the Test case on Yahoo Mail Page after login.

Testcase1: To verify that when we click mail button whether it list all the compose and check mail etc options or not
Description: click on the mail button
Expected result: Clicking of the mail button lists all the options check mail and compose etc

Testcase2: To verify that when we click check mail option in the mail list whether it takes you to inbox page or not
Description: click on check mail option
Expected result: check mail option opens the inbox page

Testcase3: To verify that when you click the inbox whether it displays u r received mails or not
Description: click the inbox button
Expected result: It lists all the mails u received in the inbox

Testcase4: To verify when u click the compose option in the mail button whether it takes u to compose page where u can compose and send mails
Description: click on the compose option in the mail button
Expected result: it takes u to compose page

Testcase5: To verify that after writing message when you click on 'Send' whether mail is sent to the address where you specified
Description: give mail id for which you want to send the message in the 'To' field and write the message in compose box and click on send button
Expected result: it sending the mail to the mail id which u are given in the TO field

Testcase6: To verify if you give wrong id whether it gives failure notice or not
Description: Give wrong mail id in compose page in the 'To' field and see what happens
Expected result: In your inbox one failure notice will come

Like this you can write any no of test cases on yahoo mail page.

14) What is VSS? Explain?

VSS: VSS stands for Visual Source Safe. It is a configuration management tool. It is a virtual library of computer files.

Users can read any of the files in the library at any time, but in order to change them, they must first check the file out. They are then allowed to modify the file and finally check it back in. Only after they check the file in are their changes made available to other users.

Configuration Management:

Definition #1: The process of identifying and defining the configuration items in a software system, controlling the release, versioning and change of these items though out the software system life cycle, recording and reporting the status of configuration items and change requests, and verifying the completeness and correctness of configuration items.

Definition #2: The tracking and control of software development. SCM systems typically offer version control and team programming features. SCM is an acronym for software configuration management, and relates to configuration management (CM).

Configuration Management Tool: A software product providing automatic support for Change, Configuration or versions control.

15) What is SDLC and briefly discuss the stages in SDLC?

SDLC or software development life cycle is the whole process of developing software, beginning from Requirement gathering to maintenance. Broadly, the different stages of SDLC can be illustrated as these,
Gathering information, Analyze, Designing, Coding, Testing, Implementation and Maintenance.

Where each stage has a well defined procedure so that the developed software meets the customer or clients requirements in the best and most cost effective manner, without erring on the quality of the product.

16) Write a test case for telephone?

Test case for telephone: 1. To check connectivity of telephone line or cable 2.To check dial tone of the phone 3. To check the keypads while you dial any valid number on the phone 4. To check ring tone with its volume levels 5.To check voice of both sides (from and to) of the phone 6. To check the display monitor of the phone. 7.To check redial option whether it's functioning or not 8. To check loudspeaker whether it is functioning or not any missing above then you can add any more test cases

17) Design the test cases on sending of the emails?

For testing sending an email you can write test cases for.
1) Performance: By using connections from different ISP's i.e. the speed.
2) If your email id is POP compliant, then check if you can sent it using email clients.
3) If you email can be sent using an attachment.
4) Maximum attachment limit.
5) Maximum mail size.
6) Sending to valid / invalid id's if mail is received / bounced back respectively.

18) What can be the various test cases for a pen?

a) To check the pen type
b) To check the pen cap is present or not
c) To check the pen ink is filled or not
d) To check the pen writing or not
e) To check the ink color i.e black or blue
f) To check the pen color
g) To check weather the pen is used to write all types of papers or not
h) To check the ink capacity of the pen
i) To check the pen product by fiber or plastic.

19) Give a test case for the withdrawal module in a banking project.

Step1: when the balance in the account is nil, try to withdraw some amount (amount>0) should display msg as " insufficient funds in acc"

Step2: when the account has some balance amount, try to withdraw the amount(amount>balance amount in account), should display "insufficient funds in acc"

Step 3: when the account has some balance amount, enter an amount (amount<=balance amount), should withdraw the correct amount from the account.

Step 4: when the account has some balance amount, enter the amount as 0, should display msg as withdrawal amount should be > 0 and should be in multiple of hundreds(varies depending on reqs docs).

In the case of Minimum balance mandatory in the Account:

Step 5: When the account has balance amount, try to withdraw whole amount , should display msg as " Minimum balance should be maintained".

Step 6: When the account has balance amount=minimum balance, try to withdraw any amount , should display msg as " Minimum balance should be maintained".

20) How to write test case of Login window where user name is editable to only upto 8 alpha characters?

1. Enter User Name and press LOGIN Button. User Name= COES. Should Display Warning Message Box "Please Enter User name and Password"

2.Enter Password and press LOGIN Button. Password= COES. Should Display Warning Message Box "Please Enter User name and Password"

3. Enter user Name and Password and press LOGIN Button. "USER = COES AND Password = XYZ" (Wrong user name & password). Should Display Warning Message Box "Please Enter User name and Password"

4. Enter user Name and Password and press LOGIN Button. "USER ="" "" AND Password = "" """(Blank values). Should Display Warning Message Box "Please Enter User name and Password"

5. Enter User Name and Password and press LOGIN Button. "USER = COES AND Password = COES" (Correct user name & password). Should navigate to next page.

6. Enter User Name and Password and press LOGIN Button "USER = ADMIN AND Password = ADMIN" (Correct user name & password). Should navigate to Maintenance page.

21) How will we prepare test cases?

Test cases are prepared on the basis of Requirement documents. Each company follows their own format.

The test cases are 3 types.

1.GUI Test cases
a. Availability b. Alignment C. Look and Feel d. Spell checking

2.Positive test cases

3.Negative test cases

22) What is the Traceability matrix? What is its use?

Traceability Matrix is a document that provides cross-reference between Requirements/ Use Cases with Test Cases and Bugs. This document establishes the Traceability between the requirements and test cases executed in the system testing. It also provides a reference to the specific requirement with reference to a particular bug.

23) How will you check that your test cases covered all the requirements?

By using, Traceability matrix. Traceability matrix means the matrix showing the relationship b/w the requirements & test cases.

24) For a triangle (sum of two sides is greater than or equal to the third side), what is the minimal number of test cases required?

The answer is 3

1.Measure all sides of the triangle.
2.Add the minimum and second highest length of the triangle and store the result as Res.
3.Compare the Res with the largest side of the triangle.