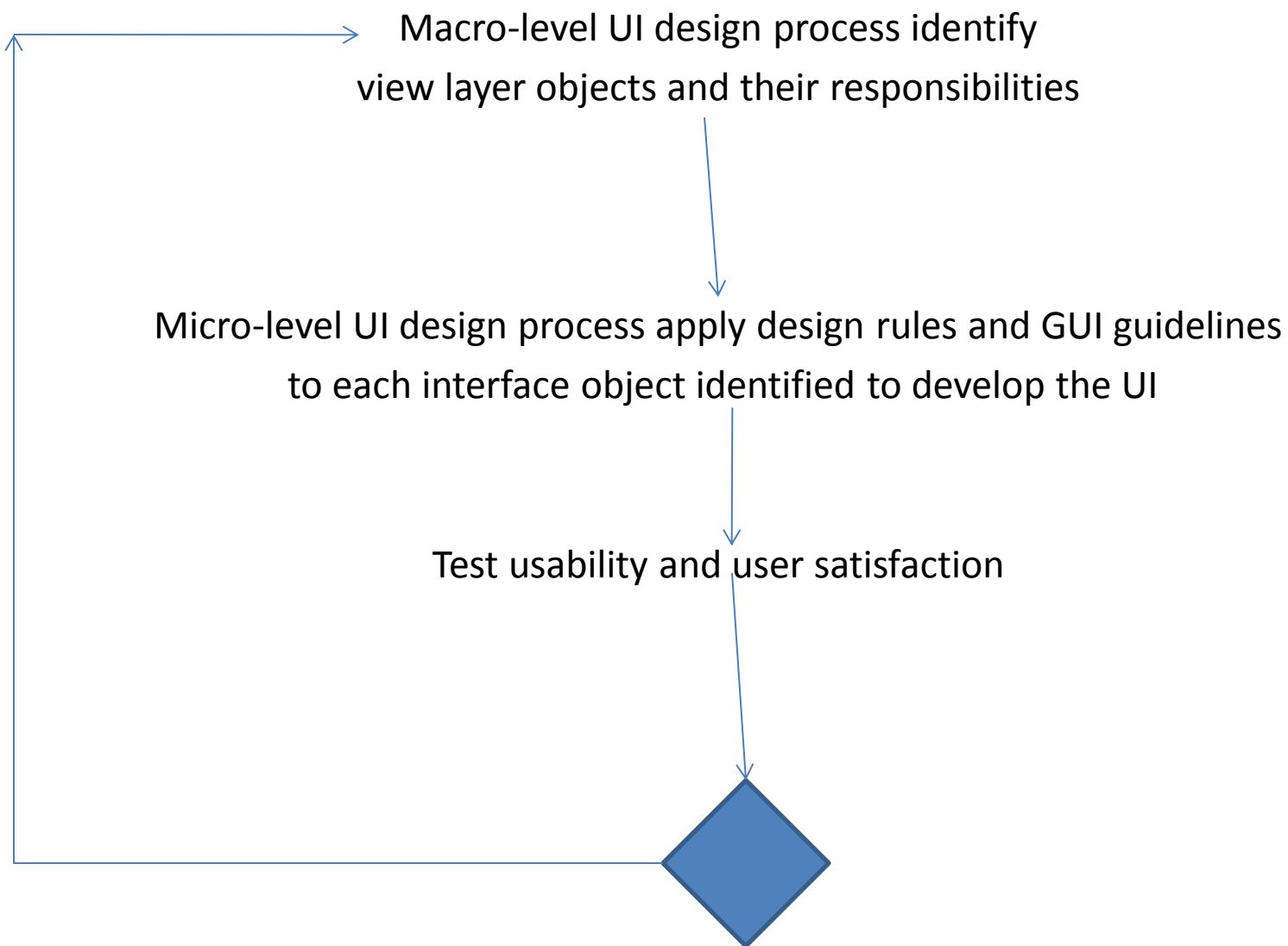
SYSTEM USABILITY AND MEASURING USER SATISFICATION

- We must measure it throughout the system development with user satisfaction test.
- User satisfaction tests that can be invaluable in developing high quality software.
- The process of designing view layer classes consists of the following steps

1. Macro-level UI design process-identifying view layer object.
2. Micro-level UI design activities.
3. Testing usability and user satisfaction.
4. Refining and iterating the design


Macro-level UI design process identify
view layer objects and their responsibilities
Micro-level UI design process apply design rules and GUI guidelines
to each interface object identified to develop the UI
Test usability and user satisfaction

USABILITY TESTING

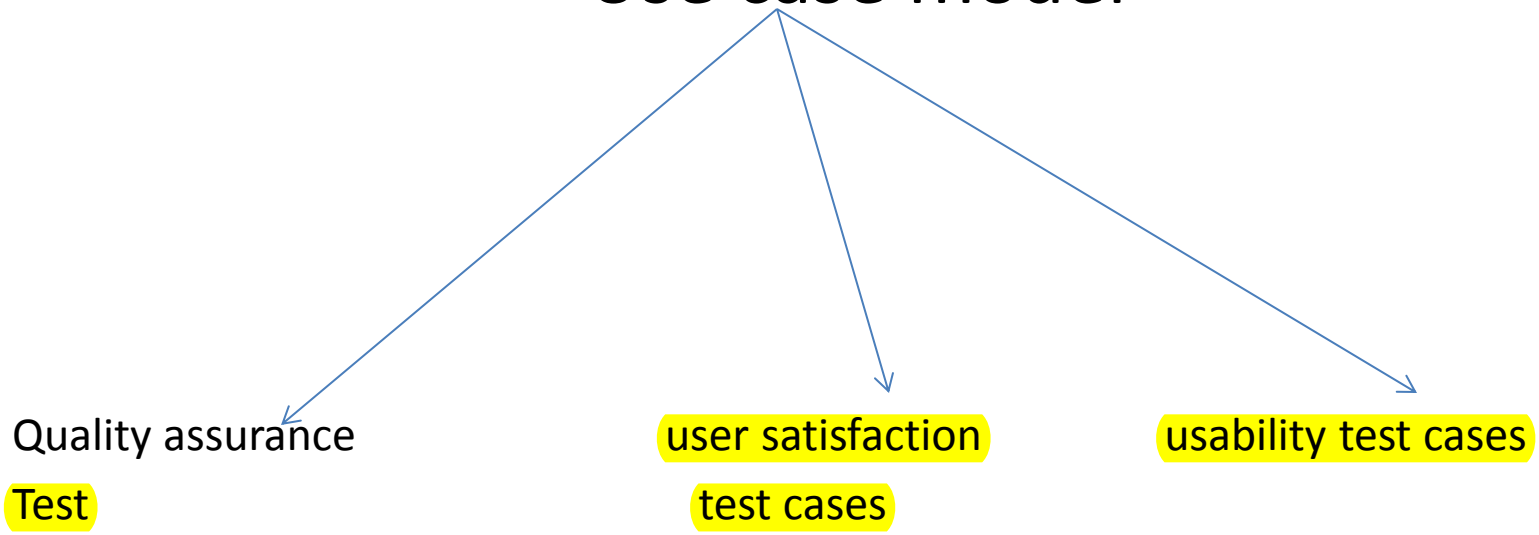
- The international organization for standardization(ISO) defines usability as the effectiveness, efficiency, and satisfaction with which specified set of users can achieve a specified set of tasks in particular environments .The ISO definition requires

1. Defining task .
2. Defining users
3. A means for measuring effectiveness, efficiency, and satisfaction .

USABILITY TESTING

- It measures the ease of use as well as the degree of comfort and satisfaction users have with the software
- Low product usability leads to high costs for users and a bad reputation for the developers.

Use case model



GUIDELINES FOR Developing USABILITY TESTING

- The usability testing should include all of a software components.
- Usability testing need not be very expensive ,such as including trained specialists working.
- All tests need not involve many subjects . More typically , quick , iterative tests with a small , well- targeted sample of 6 to 10 participants can identify 80 – 90 percent of most design problems.
- Apply usability testing early and often .

USER SATISFACTION TEST

- It is the process of quantifying the usability test with some measurable attributes of the test , such as functionality , cost , or ease of use .
- Usability can be assessed by defining measurable goals , such as

1. 95 percent of users should be able to find how to withdraw money from the ATM machine without error and with no formal training.
2. 70 percent of all users should experience the new function as “a clear improvement over the previous one .
3. 90 percent of customers should be able to operate the VCR within 30 minutes.

- It is the process of quantifying the usability test with some measurable attributes of the test, such as functionality, cost, or ease of use.
- Most of users should be able to do all the functionality without any errors.
- Another benefit of this test is that we can continue this test even after the products are delivered. The results become a measure of how well users are learning to use the product and how well it is being maintained.
- Based on some of the attributes like Ease of use, functionality, cost, intuitive UI, reliability ,the customer are asked to rank.

Objective of user satisfaction test

- As communication vehicle between designers , as well as between users and designers.
- To detect and evaluate changes during the design process.
- To provide a periodic indication of the current design .
- To enable pinpointing specific areas of dissatisfaction for remedy .
- To provide a clear understanding of just how the completed design is to be evaluated

Form for user satisfaction test

1.Ease of use

2.Functionality

3.Cost

4.Intuitive UI

5.Reliability

6. Comments.

Tool for analyzing user satisfaction : the user satisfaction test template

- Commercial off – the – shelf (COTS) Software tools are already written and a few are available for analyzing and conducting user satisfaction tests.

USER SATISFACTION TEST SPREADSHEET

- The USTS automates many bookkeeping tasks and can assist in analyzing the user satisfaction test results.
- The spread sheet should be designed to record responses from up to 10 users.
- The user satisfaction test can be a tool for finding out what attributes are important or unimportant.

Case study : developing usability test plans and test cases for the vianet bank ATM system

- Develop Test Objectives.
- Develop Test Cases.
- Analyze the Tests.

Develop Test Objectives

- Test objectives are based on the requirements, use cases, or current or desired system usage .
- The objectives to test the usability of the ViaNet bank ATM and its user interface.

95 percent of users should be able to find out how to withdraw money from the ATM machine without error or any formal training .

90 percent of consumers should be able to operate the ATM within 90 seconds.

Develop Test Cases

- Test cases for usability testing are slightly different from test cases for quality assurance . The use cases created during analysis can be used to develop scenarios for the usability test.
- The usability test scenarios are based on the following use cases :

Deposit checking.

Withdraw Checking.

Deposit Savings.

Withdraw savings.

Savings Transaction history .

Checking Transaction history .

Analyze the tests

- The user satisfaction test can be used as a tool for finding out what attributes are important or unimportant .