

# **Shilpa Nemani**

## **UI Evaluation (2 point)**

### **Heuristic Evaluation:**

#### **Objective:**

Heuristic evaluation is done as a systematic inspection of a user interface design for usability and the goal of heuristic evaluation is to find the usability problems in the design so that they can be attended to as part of an iterative design process.

#### **Inputs:**

1. The inputs are a small set of evaluators to examine the interface
2. scenarios, storyboards

Heuristic evaluation is conducted by each one of the set of evaluators ALONE. Each one of the evaluators examines the interface several times and records their observation based on the ten heuristics recommended by Jakob Nielsen for usable interface design. After all the evaluators have completed their examination of the interface are they allowed to communicate and put their views/opinions together.

### **Cognitive Walkthrough:**

**Objective** : The main focus of the cognitive walkthrough is to establish how easy a system is to learn. More specifically, the focus is on learning through exploration.

**Inputs:**

1. description of the prototype of the system
2. A description of the task the user is to perform on the system
3. complete, written list of the actions needed to complete the task with the given prototype
4. An indication of who the users are and what kind of experience and knowledge the evaluators can assume about them.

Given the above inputs, the evaluators step through the action sequence (item 3 above) to critique the system and tell a believable story about its usability. To do this, for each action, the evaluators try to answer the following four questions.

A. Will the users be trying to produce whatever effect the action has?

B. Will users be able to notice that the correct action is available?

C. Once users find the correct action at the interface, will they know that it is the right one for the effect they are trying to produce?

D. After the action is taken, will users understand the feedback they get?

**Think Aloud:**

**Objective:** the main focus of this protocol is to get a qualitative feedback from user's perspective through:

- Direct observation of what the subject is doing.
- Hearing what the subject wants, or is trying, to do.

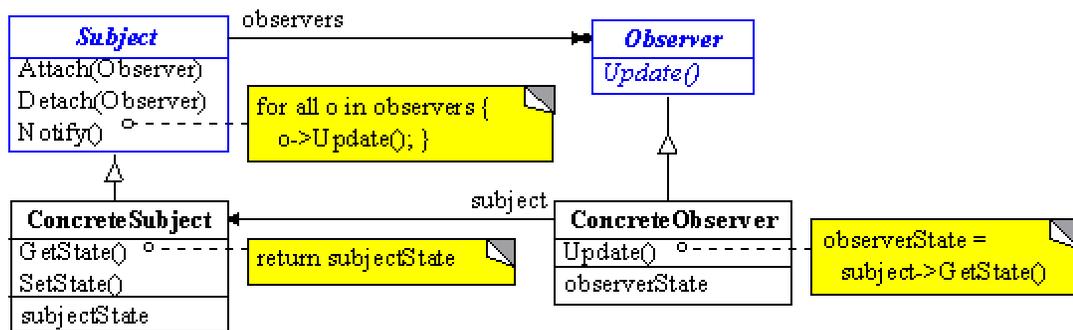
**Inputs:** needs operational prototype.

Think aloud protocols involve participants thinking aloud as they are performing a set of specified tasks. Users are asked to say whatever they are looking at, thinking, doing, and feeling, as they go about their task. This enables observers to see first-hand the process of task completion. Observers at such a test are asked to objectively take notes of everything that users say, without attempting to interpret their actions and words.

## **Design Patterns (1 point)**

Observer Pattern: This design pattern defines a one-to-many dependency between subject object and observer object so that when subject object changes then all its observer objects are updated automatically.

## How it works:



### Subject

- Knows its observers
- Has any number of observers
- Provides an interface to attach and detach observer objects at runtime

### Observer

- Provides an update interface to receive signals from the subject

### ConcreteSubject

- Store subject state interested by observer
- Send notification to its observer

### ConcreteObserver

- Maintain reference to a `ConcreteSubject` object
- Maintain observer state
- Implement update operation

