

Name: Khalid Malik

ID : 14252

PH 1

Q No 1

State machine diagram typically are used to describe state-dependant behavior for an object

An object responds differently to the same event depending on what state it is in.

State machine diagrams are usually applied to objects but can be applied to any element that has behavior to other entities.

such as: actors, use cases, methods, sub systems systems and etc. and they are typically used in conjunction with interaction diagrams.

(usually sequence diagrams).

Q No. 2

Let's say that you've had a company for years and, like everyone else, you have also had the software that helps you run your daily business. That's why you have your own IT team with a mission to automate and cover all the areas of your business. Even though your IT team has grown over the years, they are still able to cover only a portion of your business and the initial problem is still unsolved - how to make your business flow automated and fully covered.

What's more, you face a number of challenges over time, such as company growth restructuring and rapidly changing technology which require a flexible system that can adapt to all these changes. That's why you need team

of exceptional professional who can evaluate, predict and set goals which will address all of the thing mentioned above.

However, many Companies have a hard time finding, attracting training and keeping good developers. All this can certainly be quite painful experience.

Given the vital role that software plays in the success of the modern Company, it is extremely important to get the right one. The available options are either to use your own in-house IT team or hire a software development Consultancy Company.

QNO 3.

Task

Task mean a piece of work to be done.

Task implies work imposed by a person in authority or an employer or by circumstance.

Task Example

To task is to drain someone's resources or to assign someone to do a particular job.

An example of task is when a child took all his parents energy.

An example of task is when you assign joe the job of taking out the garbage

Work Product:

A work product is an output of a project. They are the lowest level of project work that are individually estimated, budgeted, assigned, executed, measured and controlled.

Work products include both tangible things such as infrastructure installations and intangible things such as presentations.

OR:

The smallest unit of project output that is estimated, budgeted, assigned, executed, measured and controlled.

OR:

Tangible and intangible outputs of a project.

Q NO. 3.

Testing

- Testing is the process of analyzing a system or system component to detect the differences between specified (required) and observed (existing) behavior.
- Testing is a fault detection technique that tries to create failures or erroneous states in a planned way.
- Unfortunately, it is impossible to completely test a nontrivial system. First, testing is not decidable.
- Second, testing must be performed under time and budget constraints. As a result, systems are often deployed without being completely tested, leading to faults discovered by end users.

Testing Activities

- Test planning allocates resources and schedules the testing. This activity should occur early in the development phase so that sufficient time and skill is dedicated to testing. For example, developers can design test cases as soon as the models they validate become stable.
- Usability testing tries to find faults in the user interface design of the system. Often systems fail to accomplish their intended purpose simply because their users are confused by the user interface and unwillingly introduce erroneous data.
- Unit testing tries to find faults in participating objects and/or subsystem with respect to the use cases from the use case model.
- Integration testing is the activity of finding faults by testing individual components in the combination.

- Structural testing is the culmination of integration testing involving all components of the system. Integration tests and structural tests exploit knowledge from the SDD (System Design Document) using an integration strategy described in the test plan (TP).

- System testing tests all the components together, seen as a single system, to identify faults with respect to the scenarios from the problem statement and the requirements and design goals identified in the analysis and system design.