**Agile and Scrum**

**Explain the agile methodology of working and its purposes**

The Agile methodology is a type of project management approach that involves breaking the tasks of project into groups, commonly known as sprints. Teams follow a SDLC in every sprint in different time.

the purposes of agile are:

1. Work flexible

2. Time-Efficient

3. Speed performance through complete the main features of project then deployment the project.

4. Frequent Changes

5.Customer Satisfaction by done work in less time.

**Compare between agile and waterfall models : advantage, disadvantage, when to use it, best practice of both**



**Waterfall model**

Advantage: provide whole view of project at the begining.

Disadvantage : delay in completing project.

Use: If the time factor is not important, Limited Resources, Small to Medium-Sized Projects, Little Changes Expected and Well-understood Requirements

Best practic : Ministries Application



**Agile model**

Advantage: Work flexible, Time-Efficient

Disadvantage : prioritizes working on projects rather than paperwork. thus will be have less documnetaion

Use: Unclear or Changing Requirements, Complex Projects, Quick Time-to-Market,

Best practic : bank system

**State all the frameworks that you know are used for implementing agile**

1. Scrum Framework

2. Kanban

3. EasyReto

**Explain in detail the scrum framework for agile : timing, meetings, roles**



**Scrum Framework** is the most popular frameworks used to practice Agile, that organizes projects in iterations called Sprints.

**Steps:**

**1.** product owner meet with project stakeholders to discusse the project requirments (stories), the result of this meeting is **product backlog. every** requirments in product backlog called stoty, and also provide explaination of this story this explaination called **user story**.

this product backlog involoves :

* story: every task
* user story: explaination of task as how user will done in this task.
* acceptance criteria: explain how should task be in side of features user movements and so on.
* priority: priporitize each task.
* estimation: estimate the difficulty of each task.
* Description: additional project description

**2.** product owner meet with project team to select **sprint backlog** this meet called **sprint planning team, the purpose of this meet is** to break the stories in different group which every group called **sprint**, which the developers team will focus to develop this first of sprint backlog. thus, this type of meet do evey time work with new sprint backlog, may after every 3 months or more the time selected as agreed between product owner and developers team.

**3.** During develop sprint backlog, the team meet with each other everyday to follow up the sprint backlog this meet called **daily scrum meeting**. In this type of meeting the **scurm master** presides over the meeting.

**4**. After complete develope first sprint backlog, product ower meet with stakeholders agine to inform them of complete first sprint backlog , or delivery project. this meet called **sprint review**.

**5.** Before work with new sprint backlog the team and product owner meet togather to identify strengths and weaknesses of previous sprint backlog, this meeting called **sprint retrospective.**

**6.** Agein meet (sprint planning meeting) between product owner and developers meet to ideftify new sprint backlog.

**7.** Then do some process with new sprint backlog.