

## **Assignment-3**

### **Comparing the SDLC models for suitability to an engineering project:**

Considering a project to develop a basic task management app.

Analyzing the advantages and disadvantages of each SDLC model in this scenario.

#### **1. Waterfall Model:**

##### ➤ Advantages:

- Clear steps make it easy to understand and manage.
- Documentation helps keep track of progress.
- Works well for projects with clear requirements.

##### ➤ Disadvantages:

- Hard to change things once you've started.
- Customers don't get involved until the end.
- Problems might not show up until it's almost done.

#### **2. Agile Model:**

##### ➤ Advantages:

- Can change things as you go.
- Customers are part of the process, so the app fits their needs.
- You get to see and use parts of the app early on.

##### ➤ Disadvantages:

- Needs a lot of communication and teamwork.
- Can be hard to keep track of changes.
- Takes a lot of time and resources.

#### **3. Spiral Model:**

##### ➤ Advantages:

- Helps find and fix problems early.
- You can keep making changes based on feedback.
- Good for projects where things might change a lot.

##### ➤ Disadvantages:

- Can be complicated and take a long time.
- Might cost more because of all the steps.
- Needs a lot of planning and thinking ahead.

#### **4. V-Model:**

##### ➤ Advantages:

- Testing is a big part of each step, so you catch problems early.
- Helps make sure the app meets all the rules and standards.
- Good for projects with strict rules, like safety rules.

##### ➤ Disadvantages:

- Hard to change things once you start testing.
- Customers don't have much say until the end.
- Needs a lot of planning and paperwork upfront.

For the task management app development project, the Agile model may be the most suitable approach due to its flexibility and ability to adapt to changing requirements and customer feedback.