**Assignment**

**Question:**

1. What is the Feasibility Study of the SDLC model & why is this important?
2. Write 5 advantages of Agile methodology.
3. Write short notes on SDLC model phase.

**Solution:**

**Ans.to the question no 1**

Feasibility study is an important step in the SDLC. It is the first stage of software development. It helps to determine that a proposed software project is either viable, cost-effective and practical or not. There are 3 types of feasibility studies. Such as,

1. **Technical Feasibility:** Technical feasibility evaluates the current technologies, which are needed to accomplish customer requirements. It represents that those technologies are time efficient or not, budget friendly or not etc.

2. **Operational Feasibility:** Operational feasibility assesses the range in which the required software performs a series of levels to solve business problems and customer requirements. Which means it ensure that the software, we're going to develop are fulfil customer's demand.

3. **Economic Feasibility:** Economic feasibility decides whether the necessary software can generate financial profits for an organization.

Feasibility studies offer us the chance to “get it right” before committing time, money and business resources to an idea that may not work in the way we originally planned. It may also open new possibilities, opportunities and solutions. That's why it is important.

**Ans.to the question no 2**

5 advantage of agile model:

1. It break down projects into sprints and collaborate with one another to provide high-quality results. Thus it improves the quality.

2. Customer satisfaction is rapid.

3. Customer, Developer, and Product Owner interact regularly to emphasize rather than processes and tools.

4. Product is developed fast and frequently delivered.

5. By regular team meetings with the client and the Agile Project Manager, it reduces the risk.

**Ans.to the question no 3**

There are seven phase in SDLC model.

**Phase1:** **Planning and requirement analysis:** The requirement is the first stage in the SDLC process. It is conducted by the senior team members with inputs from all the stakeholders and domain experts in the industry. Planning for the quality assurance requirements and recognition of the risks involved is also done at this stage.

**Phase 2:** **Defining Requirements:** Once the requirement analysis is done, the next stage is to certainly represent and document the software requirements and get them accepted from the project stakeholders.

**Phase 3:** **Designing the Software:** The system and software design documents are prepared as per the requirement specification document. This helps define overall system architecture.

**Phase 4:** **Developing the project:** In this phase of SDLC, the actual development begins, and the programming is built. Developers have to follow the coding guidelines described by their management and programming tools like compilers, interpreters, debuggers, etc. are used to develop and implement the code.

**Phase 5:** **Testing:** Once the software is complete, and it is deployed in the testing environment. The testing team starts testing the functionality of the entire system.

**Phase 6:** **Deployment:** Once the software testing phase is over and no bugs or errors left in the system then the final deployment process starts. Based on the feedback given by the project manager, the final software is released and checked for deployment issues if any.

**Phase 7:** **Maintenance:** Once the system is deployed, and customers start using the developed system. For better user experience the software must need maintenance. Like bug fixing, upgrade, enhancement etc.