TASK-1

Design of Problem Statement, Feasibility Study, and Process Model

Aim:

The aim is to design a problem statement, perform a detailed feasibility study, and finalize the process model to be used for developing an Online Banking System.

Problem Statement:

In an Online Banking System, registered users can securely access their bank accounts through the internet to perform various financial operations such as fund transfer, balance enquiry, mini statement, bill payments, and profile management.
Users log in using a secure username and password verified with the bank's database. Once authenticated, users can view their account balance, transfer funds to other accounts, pay utility bills, or download mini statements for recent transactions.
The system must ensure data security, encryption for transactions, and session management to prevent unauthorized access. After completing transactions, users should receive confirmation messages and have the option to download or print receipts.

Scope:

The scope of the Online Banking System is to provide customers with a secure and convenient digital platform to manage their financial activities anytime and anywhere. It allows users to transfer funds, pay bills, check balances, and view transaction history, while ensuring robust security measures, encryption, and compliance with banking standards.

Feasibility Study:

Technical Feasibility:

The Online Banking System can be developed using modern web technologies such as Java / Node.js for backend, Angular / React for frontend, and MySQL as the database.
It requires a secure server, SSL encryption, and authentication mechanisms. Since these tools and technologies are widely available and cost-effective, the system is technically feasible.

Economic Feasibility:

The cost of developing the Online Banking System includes server setup, software licensing (if required), developer resources, and maintenance.
However, the benefits—such as reduced manual workload, faster services, and customer satisfaction—far outweigh the initial investment. Thus, the system is economically feasible.

Operational Feasibility:

The system is designed to be user-friendly and accessible through both web and mobile devices. Users only need basic computer or smartphone knowledge to operate it. Administrators and bank staff can easily manage users and transactions using a simple interface. Therefore, the system is operationally feasible.

Process Model: Agile Model

The Agile process model is preferred for developing the Online Banking System due to its adaptability and focus on user collaboration.

1. Iterative and Incremental Development:
   Features like login, fund transfer, and mini statements can be developed and refined in small iterations.
2. Flexibility to Changing Requirements:
   Agile allows the team to incorporate updates in banking regulations or user feedback easily.
3. Frequent User Involvement:
   Regular input from customers and banking staff ensures the system meets usability and security expectations.
4. Continuous Integration and Testing:
   Each feature undergoes frequent testing to ensure security, reliability, and performance.
5. Rapid Delivery of Value:
   A Minimum Viable Product (MVP) with basic banking operations can be released early for user testing.
6. Adaptability to Risks:
   Agile helps identify and mitigate risks related to cybersecurity and compliance.
7. Collaboration Between Teams:
   Continuous coordination between developers, testers, and bank officials ensures smooth integration.
8. Customer Satisfaction:
   Continuous user feedback and regular updates improve customer trust and satisfaction.

Result:

Thus, the problem statement for the Online Banking System has been defined, a detailed feasibility study has been performed, and the Agile process model has been finalized as the best approach for its development**.**