<u>Assignment 2:</u> Develop a case study analyzing the implementation of SDLC phases in a real-world engineering project. Evaluate how Requirement Gathering, Design, Implementation, Testing, Deployment, and Maintenance contribute to project outcomes.

Real world application for SDLC (Software Development Life Cycle):

SDLC can be applied in many real-world applications like

- Data Science
- Health Care
- App & web development
- Finance
- IOT

Case Study: SDLC in Finance Industry

In the finance industry, the Software Development Life Cycle (SDLC) plays a vital role in developing and deploying applications like online banking systems.

- **1.Planning:** During this phase, financial institutions define project objectives, such as enhancing customer experience and improving transaction security.
- **2.Requirement Analysis:** The developers gather requirements from investors and conduct possibility studies to assess the project's possibility.

3.Design and Development:

- The design phase involves creating system architecture and user interface models, ensuring a user-friendly and secure banking experience.
- Development entails coding the online banking application according to specifications, with a focus on features like account management, fund transfers, and bill payments.
- **4.Testing:** Extensive testing is conducted to validate system functionality, security, and compliance with regulatory standards like PCI-DSS.
- **5.Deployement:** Upon the successful testing the online banking system is now ready to deploy.
- **6.Maintenance:** We have maintain the system to ensure reliability and security for the customers.