Software Development Life cycle

SDLC is a structured process that uses analysis, design, development, testing,deployment and maintenance.the goal of SDLC model is to deliver high-quality and maintainable software that meets the user requirements.

The SDLC model has six phases:

1. Analysis: After we get the requirement from the user then the analysis phase starts, this phase is planning what we can do and what tools needed to use in this project.in analysis phase has many roles such as product owner, project manager, business analyst and CTO.
2. Design: the designer can design the software based on the user requirements using tools such as figma or dx adobe.the design phase has many roles or titles like system architect and it is an information and communications technology professional and UI/UX designer and the UI means User Interface and UX means User Experience.
3. Development: the developer takes the design from the designer and uses specific tools to create the software. The development is divided into two mean parts. The first part is front-end and it means what the user can see the screens and what they can handle with and it has its own developers to develop the front-end. There are many tools or frameworks that a developer can use to develop the software like next.js, angular , react and blazor. The back-end has its own developers and uses their own technology and they are responsible for handling databases and how users register or authenticate and how the data store. There are many tools or frameworks that handle the back-end such as Django, laravel and ASP.net.
4. Testing: after developing software now we need to test the software to ensure smooth execution and fixing any bug in the software. We can test the software by QA engineer or tester or DevOps.
5. Deployment: after we test the software now we can upload it to become public and everyone can use it. There are many roles in deployment like data administrators that are responsible for databases and many things and devops.we can use docker to upload the software in the store.
6. Maintenance: after we deploy the software in the store the software needs to update and maintain every time to ensure performance and reliability.