SDLC MODEL

The SDLC tasks completes the process(through the six stages) of developing a software. The process has to be followed according to some set rules too. The SDLC models define the rules that has to be followed while completing the process of developing a software.There are various models through which the process can be completed. The important and popular ones are

1.Waterfall Model

2. Spiral Model

3. Incremental model

4.Iterative model

5.Agile Model

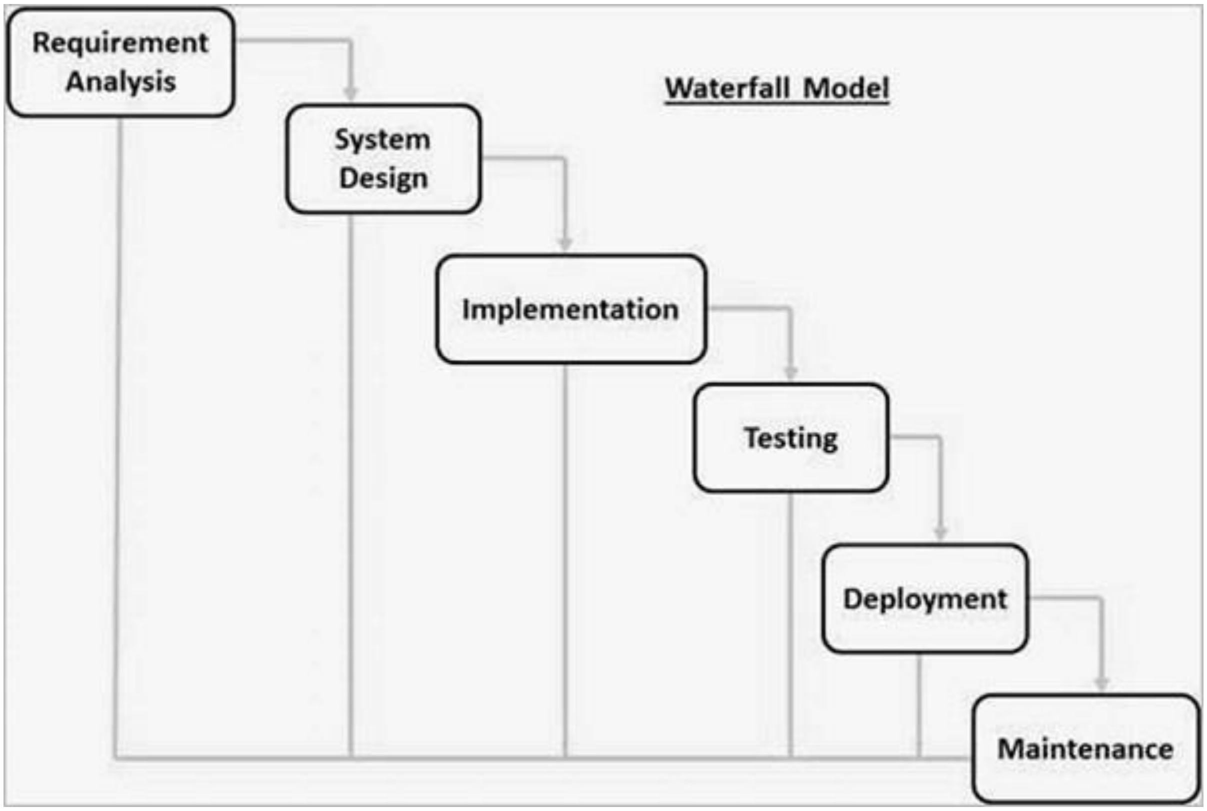
And many others.

The description of the models are following:

1.Waterfall model: Some experts argue that the Waterfall model was never meant to be a process model for real projects. Regardless, the Waterfall model is widely considered the oldest of the structured SDLC methodologies. It’s also a very straightforward approach: finish one phase, then move on to the next. No going back. Each stage relies on information from the previous stage and has its own project plan.

The drawback with Waterfall is its rigidity. Sure, it’s easy to understand and simple to manage. But early delays can throw off the entire project timeline. With little room for revisions once a stage is completed, problems can’t be fixed until you get to the maintenance stage. This model doesn’t work well if flexibility is needed or if the project is long term and ongoing.

Even more rigid is the related Verification and Validation model — or V-shaped model. This linear development methodology sprang from the Waterfall approach. It’s characterized by a corresponding testing phase for each development stage. Like Waterfall, each stage begins only after the previous one has ended. This SDLC model can be useful, provided your project has no unknown requirements



The sequential phases in Waterfall model are −

- **Requirement Gathering and analysis** − All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.
- **System Design** − The requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying hardware and system requirements and helps in defining the overall system architecture.
- **Implementation** − With inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.
- **Integration and Testing** − All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.
- **Deployment of system** − Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.
- **Maintenance** − There are some issues which come up in the client environment. To fix those issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.