The systems development life cycle (**SDLC**), also referred to as the application development life-cycle, is a term used in systems engineering, information systems and software engineering to describe a process for planning, creating, testing, and deploying an information system, for example for a website or maybe even an app. There are eight different steps in the whole SDLC process, Initiation, System concept and development, planning, requirements and analysis, design, development, integration and test, implementation, operations and maintenance and last but not least disposition. Many different models uses this specific cycle, but not all the steps are implemented in all the models.

The more popular ones are

1. Waterfall Model -It is the oldest and most straightforward of the structured SDLC methodologies — 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. Waterfall is easy to understand and simple to manage. But early delays can throw off the entire project timeline. And since there is 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.
2. V-shaped Model- the V-shaped model grew out of Waterfall and is characterized by a corresponding testing phase for each development stage. Like Waterfall, each stage begins only after the previous one has ended. This model is useful when there are no unknown requirements, as it’s still difficult to go back and make changes.
3. Agile Model - This model emphasizes interaction, as the customers, developers and testers work together throughout the project, By breaking the product into cycles, the Agile model quickly delivers a working productand is considered a very realistic development approach.