**Software Development Life Cycle Models**

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| **S.No** | **Models** | **Definitions** | **phases** | **Advantages** | **Disadvantages** |
| 1. | Water fall Model | The Water Model is a classical Model used in system Development Life cycle to create a system with linear and Sequentical approach. | 1.Requirment anlysis  2.System Design  3.Implementation  4.Testing  5.Deployment  6.Maintance | 1.Easy to understand  2.Easy to manage.  3.Fewer production issues  4.Better budget Management | 1. Not flexible  2.It doesn’t handle unexpected risks well.  3.It is not a good for complex or long-term projects. |
| 2. | Iterative Model | It is a process in which a product undergoes repeated testing and tweaks throught different stages of its development. | 1.Requirement  2.Design&developemnt  3.testing  4.implementation | 1.Problems detected early  2.allows evolution of requirements  3.Smaller developemnt terms. | 1.Risk analysis not formalised  2. Less Parallelism. |
| 3. | Spirl Model | Spiral Model is one of the most important SDLC Models,it supports for Risk Handling | 1.Objectivve determination  2.Identify and resolve risk  3.Develop next version of the product  4.Review and plan for next phase | 1.Good for large project  2.Flexibility in requirements | 1.Demand Risk assessment expertise.  2.Cost is high. |
| 4. | V-Shaped Model | The execution of processes happens in a sequential mannar in a V-shape. | 1.Business Requirement  2.System analysis  3.system design  4.Module design  5. coding  6.testing(unit,integration,system,  Acceptance) | 1.Simple and easy to use  2.Avoids the downward flow of the defects. | 1.Error can be fixed only during the phase.  2.very rigidcompare to waterfall model |
| 5. | Agile Model | It is a combination of iterative and incremental process with focus on process adaptability. | 1.Concept  2.Inception  3.Iteration  4.Release  5.maintenance  6.retirement | 1.Product is developed fast.  2.Continuous delivery of useful Software | 1.Poor resource planning  2.Limited documentation  3.No finite end. |