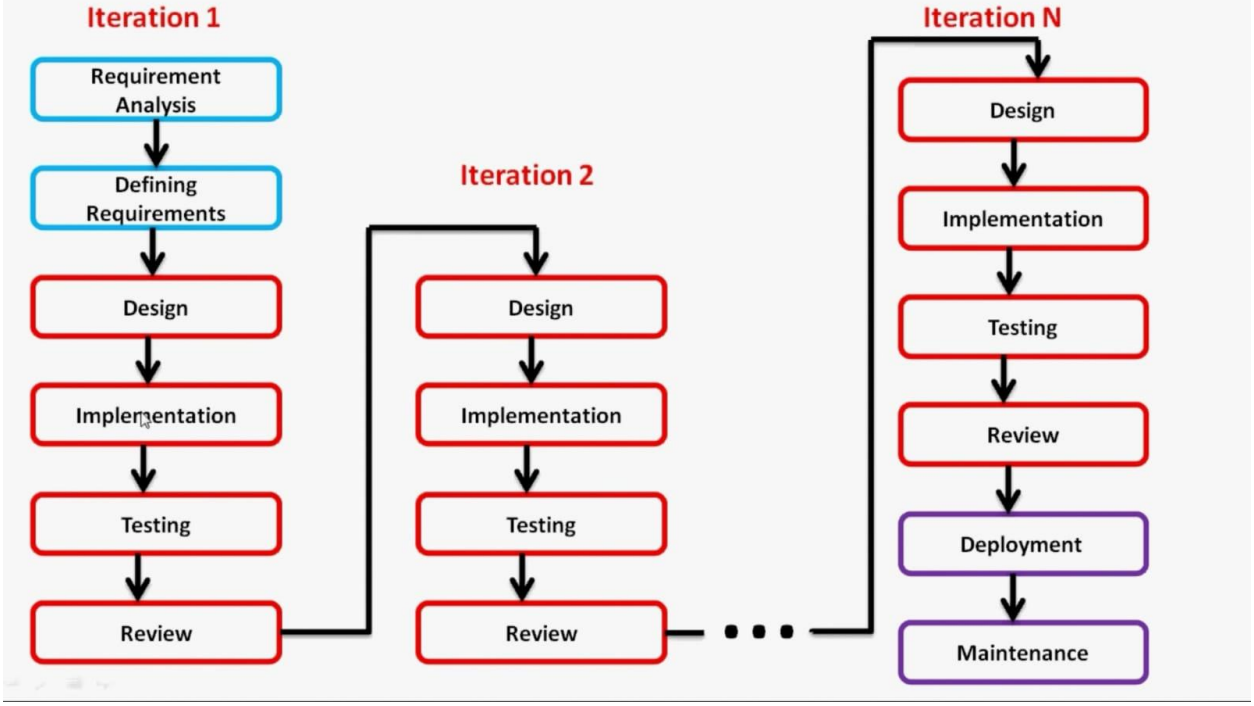
Iterative Model

In Iterative Model, first we start with some of the software specifications and develop the first version of the software. After the first version if there is a need to change the software, then a new version of the software is created with a new iteration. We continue this process until all our requirements are fulfilled and the feedback from the review team is good. Then we deploy our software and the maintenance period starts.



The various phases of Iterative model are as follows:

1. Requirement gathering & analysis: In this phase, requirements are gathered from customers and checked by an analyst whether requirements will be fulfilled or not. Analyst checks that need will be achieved within budget or not. After all of this, the software team skips to the next phase.

2. Design: In the design phase, the team designs the software by the different diagrams like Data Flow diagram, activity diagram, class diagram, state transition diagram, etc.

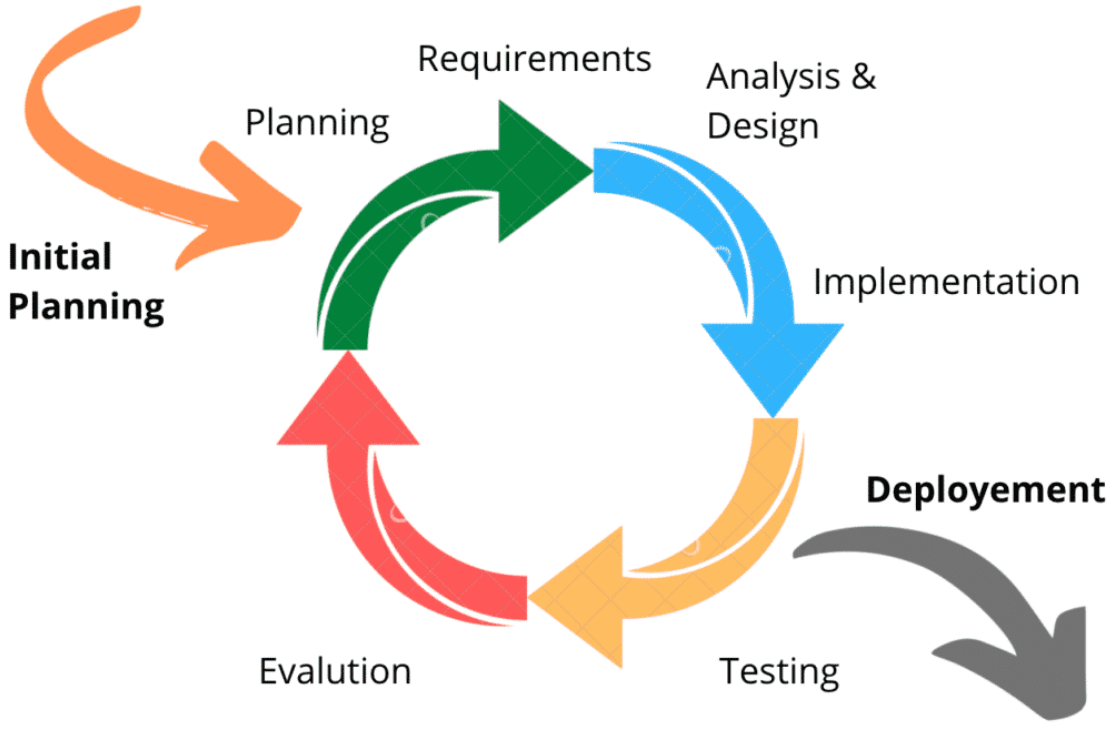
3. Implementation: In the implementation, requirements are written in the coding language and transformed into computer programmes which are called Software.

4. Testing: After completing the coding phase, software testing starts using different test methods. There are many test methods, but the most common are white box, black box, and grey box test methods.

5. Review: In this phase, after the product deployment, review phase is performed to check the behavior and validity of the developed product. And if there are any errors found then the process starts again from the requirement gathering.

6. Deployment: After completing all the phases, software is deployed to its work environment.

7. Maintenance: In the maintenance phase, after deployment of the software in the working environment there may be some bugs, some errors or new updates are required. Maintenance involves debugging and new addition options.



When to use the Iterative Model?

1. When Major requirements are defined clearly and easy to understand.
2. When the software application is large.
3. When there is a requirement of changes in future

Advantage of Iterative Model:

1. Testing and debugging during smaller iterations is easy.
2. A Parallel development can be planned.
3. It is easily acceptable to the ever-changing needs of the project.
4. Risks are identified and resolved during iteration.
5. Limited time spent on documentation and extra time on designing.

Disadvantage of Iterative Model:

1. It is not suitable for **smaller** projects.
2. More Resources may be required.
3. Design can be changed again and again because of imperfect requirements.
4. Requirement changes can cause over budget.
5. Project completion date not confirmed because of changing requirements.