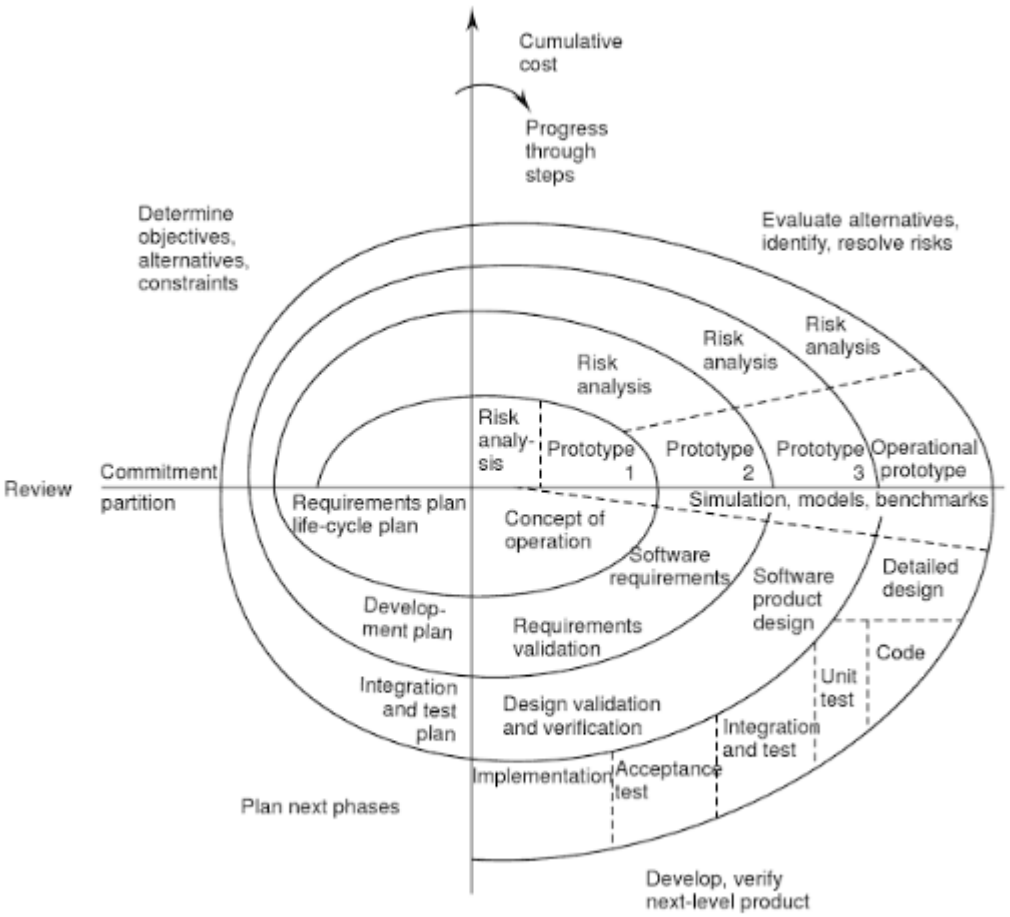
- Spiral model is an evolutionary software model.
- Spiral model may be viewed as a Meta model, because it can accommodate any process model.
- Spiral model focuses on identifying and eliminating high risk problems.

Following is the illustration of Spiral model:




*The Spiral Model*

- First Quadrant :It determine the objective and alternative solution possible for the phase under consideration.

- Second Quadrant: We evaluate different alternatives based on objective and constraint. To resolve risk.
- Third Quadrant: It emphasises development of strategies to resolve the uncertainties and risks.
- Fourth Quadrant: We determine the objective that should be full filled in next cycle to get complete system.

Characteristics of Spiral Model:

- It is cyclic not linear like Waterfall model.
- Each cycle of Spiral Model consist of four stages.
- Each stage is represented by quadrant of Cartesian Diagram.
- Radius of Spiral represent cost accumulated so far in the process.
- Angular dimension represent progress in process.

Advantages of Spiral Model:

- It is risk driven model.
- It is very flexible.
- Less documentation is needed.
- It uses prototyping.
- It is more realistic model for software development.

Disadvantages of Spiral Model:

- Not suitable for small projects.
- Cost is very high.

- Rely on risk assessment expertise.
- Excellent management skills needed.
- Involvement of different persons makes it complex too.

Limitations of Spiral Model:

- Software development has no strict standard.
- Particular phase has no particular beginning and end.

When to use Spiral Model:

- Spiral model is used when experimenting on technology.
- When trying out new skills.
- When the user is not able to offer requirements in clear terms.
- When system is very complex with lot of functions  and facilities.
- When requirements is not clear.
- When the intended solution has multi user, multi functions, multi features, multi locations applications to be used on multiple platforms.