Waterfall Model

- Plan vs course change
- The waterfall model is often considered out of date
- Not an inflexible process but often created an inflexible instance (process vs people)
- Planning allows for more oversight and control

When to use:

- Requirements very well documented, clear and fixed
- Product definition is stable
- Technology is understood and is not dynamic
- There are no ambiguous requirements
- Ample resources with required expertise are available to support the product
- The product is short

1 Advantages

- Simple and easy to understand and use
- Easy to manage due to the rigidity of the model. Each phase has specific deliverables and a review process
- Phases are processed and completed one at a time
- Works well for smaller projects where requirements are very well understood
- Clearly defined stages
- Well understood milestones
- Easy to arrange tasks
- Process and results are well documented
- Iteration occurs within activities

2 Disadvantages

- No working software is produced until late during the life cycle
- High amounts of risk and uncertainty
- Not a good model for complex and object-oriented project
- Poor model for long and ongoing projects
- Not suitable for the projects where requirements are at a moderate to high risk of changing. So, risk and uncertainty is high with this process model
- It is difficult to measure progress within stages
- Can't accommodate changing requirements
- Adjusting scope during the life cycle can end a project
- Integration is done as a "big-bang" at the very end, which doesn't allow identifying any technological or business bottleneck or challenges early