0.1 Phases

Project lifecycle

1. Initiation

   - Projects objective or need is identified
   - "Can/should we do the project"
   - Roles are appointed

2. Planning

   - Heaviest step for the project manager
   - Necessary steps are specified
   - Teams identify work/task needed to be done
   - Budget estimate costs
   - Known as **Push approach**
   - Identify the possible risks of the project and mitigations are put in place and communicated to stakeholders
   - Using agile project management is called **Pull based approach**

3. Implementation

   - Project is put into work
   - Communication about progress is key both to project managers and stakeholders
   - Regularized team meetings such as SCRUMS

4. Closure

   - Releasing the final deliverables
   - Handing documentation over to business
   - Communication of finalization to stakeholders

Throughout the projects lifecycle we have "mini-livecycles" called **process groups** which are the following steps

1. Initiating:
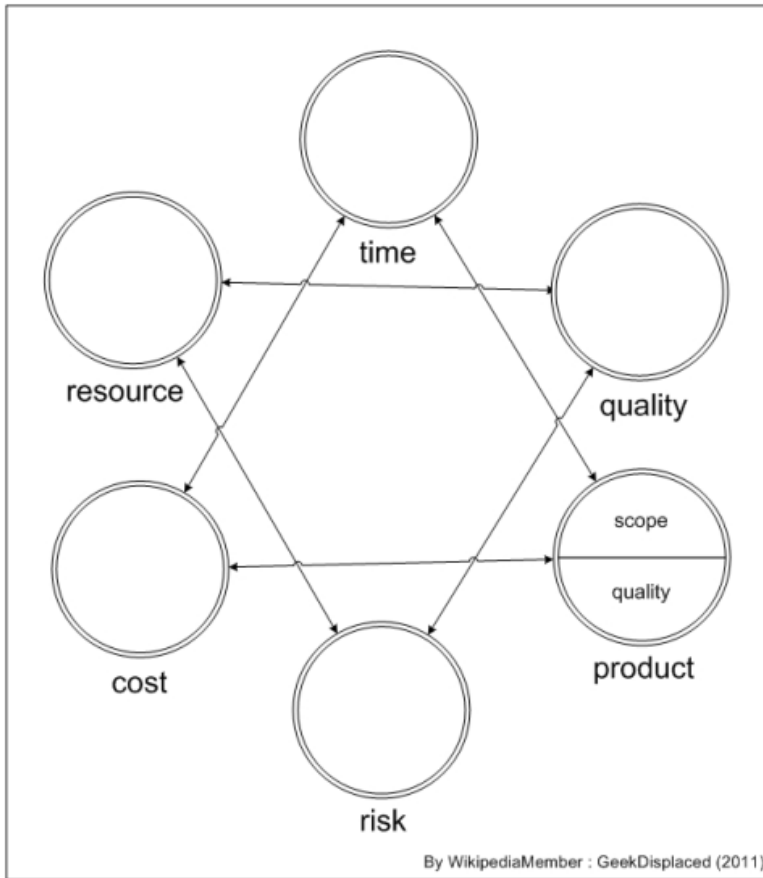
2. Planning

3. Executing

4. Monitoring and controlling

   - While work is being done on the project we need to monitor progress with
     - The plan
     - The requirements
     - The budget
     - The quality

5. Closing

Project management star model

time
resource
quality
scope
quality
product
cost
risk

0.1.1 PMBOK

Managing

- Integration
  - Team defines scope of work
  - Preliminary schedule
  - Conceptual budget
  - Team builds a plan for executing the project based on the project profile
  - Plan for developing and tracking detailed schedule
  - Plan for building budget and estimating and tracking costs
  - IT plan (including communications)
  - Diagrams, flowcharts and responsibilities matrices
- Scope: What will be done defined in an execution plan
  - Description of the scope
  - Product acceptance criteria
  - Project deliverables
  - Project exclusions
  - Project constraints
  - Project assumptions

- Time/Schedule

    - Schedule and incremental milestones in accordance with key features/dates
    - The longest path to completion is called the **Critical path**
    - If critical path is shorter than the alloted time: *Positive float or slack*
    - If critical path is longer than alloted time: *Negative float*

- Costs

    - Ballpark estimates increase in accuracy with more experience with previous projects and their associated actual versus estimated budgets
    - As the project proceeds we must compare the estimate against actual costs and if there is deviation corrective action must be taken and shared with stakeholders

- Quality

- Human Resources

    - Generally there are 2 types of members
        * Functional managers and team who work on the tech and development of the project
        * Process managers and team focus on the "Project" side of things such as planning, costs, and communication

- Communication

    - Regularized meetings to communicate progress and if it is going according to plan and if there is any corrective action needed

- Risk:

    - The likelyhood that an event will happen during the life of the project that will negatively affect the achivement of the project goals
    - Project risk plan reflects the risk profile of the project and balances the investment of the mitigation against the benefit of the project
    - Periodic risk-plan reviews during the life of the project

- Procurement: External services/vendors

- Stakeholders

Waterfall Project lifecycle