Chapter 1

1.1 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

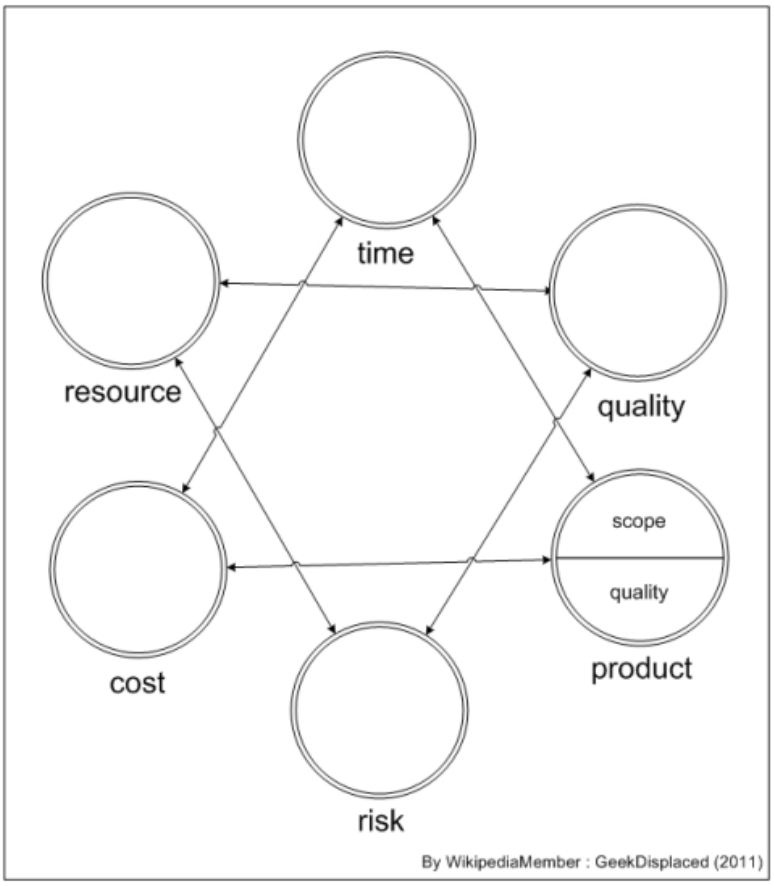
Throughout the projects lifecycle we have "mini-livecycles" called **process groups** which are the following steps

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



1.1.1 PMBOK

Managing

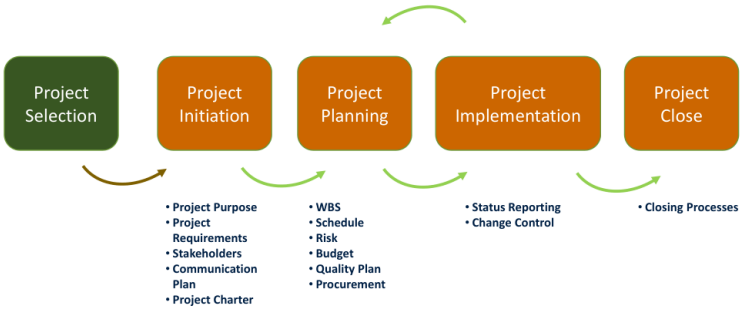
- Integration
  - Team defines scope of work
  - Preliminary schedule
  - Conceptual budget
  - Team builds a plan for executing the project based on the project profile
  - Plan for developing and tracking detailed schedule
  - Plan for building budget and estimating and tracking costs
  - IT plan (including 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

Note:-
Change in the scope of a project can be very costly so we must manage and prepare for inevitable change

- 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



1.2 Stakeholders