Lecturecast Week 1: Introduction to Software Engineering Project Management

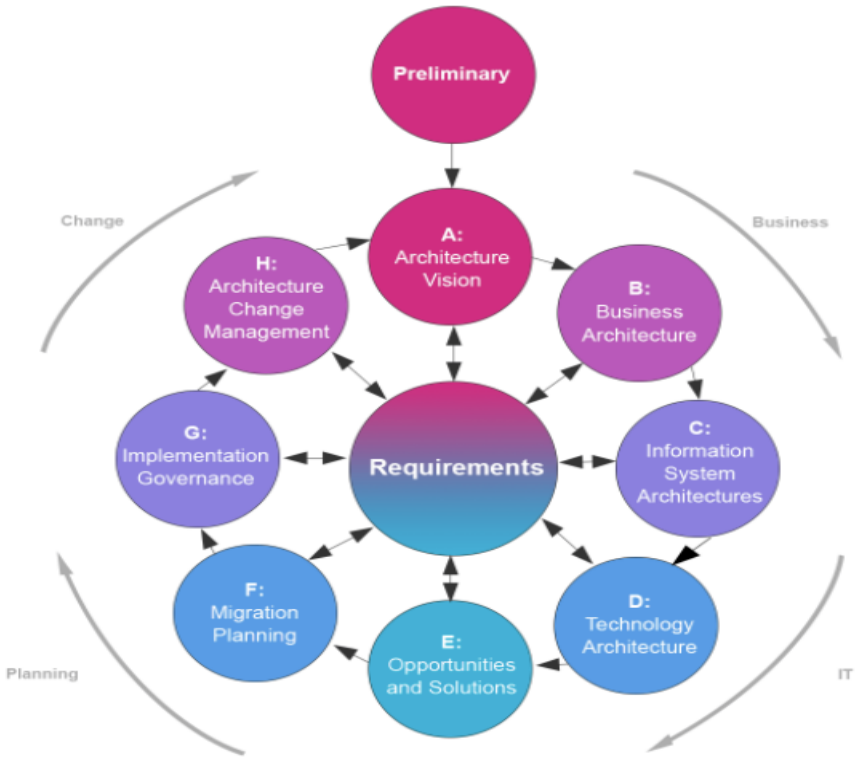
Software Engineering Project Management can be defined as the application of project management techniques to the software development field. It requires the knowledge of the software development life cycle and all other activities that would be done in a non-IT related project (this includes recruitment and managing teams).

A project manager is required to manage **Requirements, Resources, Stakeholders and Expectations.**

From a technical and planning perspective, a project manager will be required to work with:

- Architects, Developers and Test managers on design.
- Project Analysts on schedule
- Procurement on orders and deliveries
- Internal and external team on reviews
- Architects on optimization and problem -solving.

The Open Group Architecture Framework (TOGAF) is useful in mapping a project manager's activities



TOGAF Architecture Development Method

All phases can be categorized under four headings:

Business – A, B

IT – C, D, E

Planning – E, F, G

Change – G, H

Requirements as shown in the above diagram are central to every architectural decision or change. They must be gathered, rationalised, reviewed, and agreed upon for successful project delivery. Feiler (2019) points out that 70% of errors are introduced in the early phases (A, B and R) yet only 3.5% of errors are identified and fixed in these phases. Most errors (80%) are identified at the system integration phase or later, which usually results in much more expensive fixes (Feiler, 2019).

Common Causes of Project Failure

Most problems identified can be categorized under the following headings:

- Market and Strategy
- Organisation and Planning
- Leadership and Governance
- Estimation and Analysis
- Quality
- Risk
- Skills and Competency
- Communication and Engagement

Some useful tools in Project Management include:

- Estimation tools
- Modelling tools: UML
- Reporting tools: progress reporting can be done using KPIs and RAG status