# Software Project Management

## SSZG622

Prof. Narasimha Bolloju, Ph.D.
Department of Computer Science and Information Systems
Birla Institute of Technology and Science, Pilani

**BITS** Pilani

Pilani | Dubai | Goa | Hyderabad

# About the SPM course

- Flipped mode with recorded lecture content on Taxila/elearn platform
- Small group work (on MS-Teams)
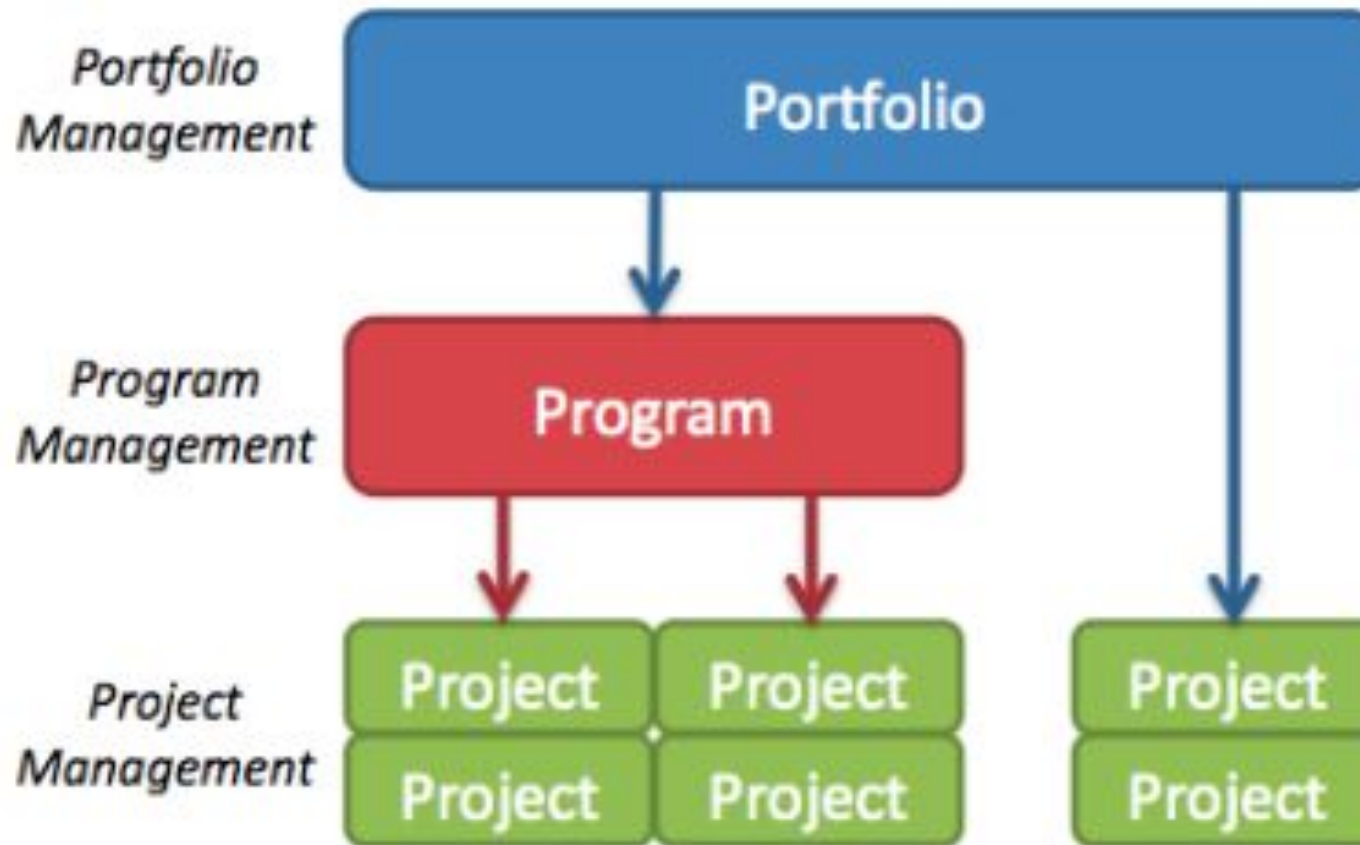- ACL case study used in all contact sessions

# Activity - CS01#1

a) What do software project managers do or expected to do?

b) What are the typical challenges associated with managing software development projects?

# Topics

- Project vs. program vs. portfolio
- SDLC vs. project life cycle
- Why SPM is challenging?
- Evaluation scheme and assignment details
- Objectives for information system and project management

https://kevinberardinelli.com/2011/03/07/project-management-body-of-knowledge-pmbok-notes-introduction-chapter-1/
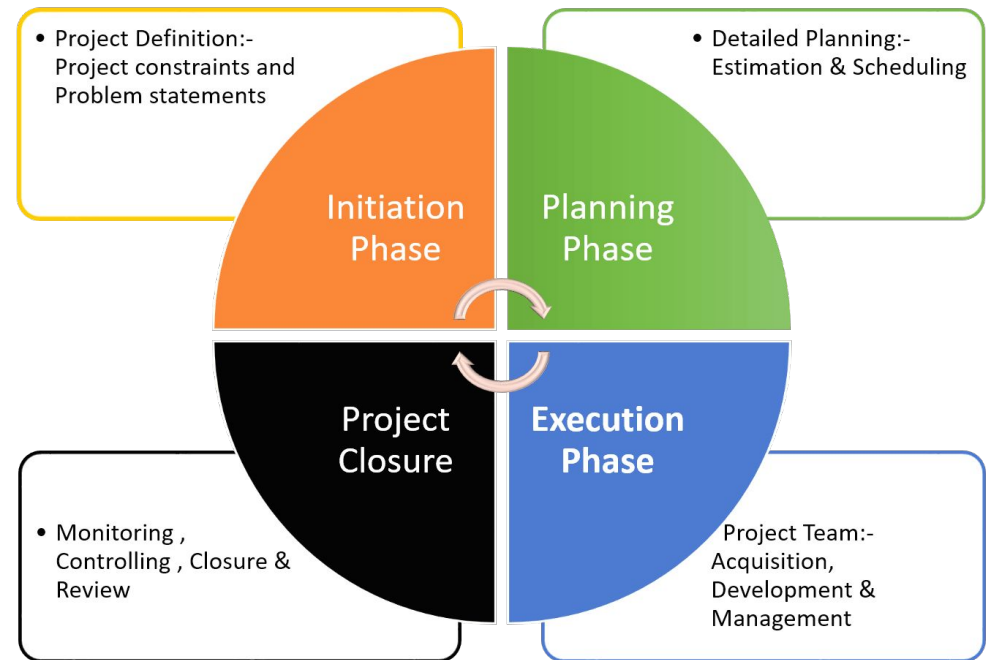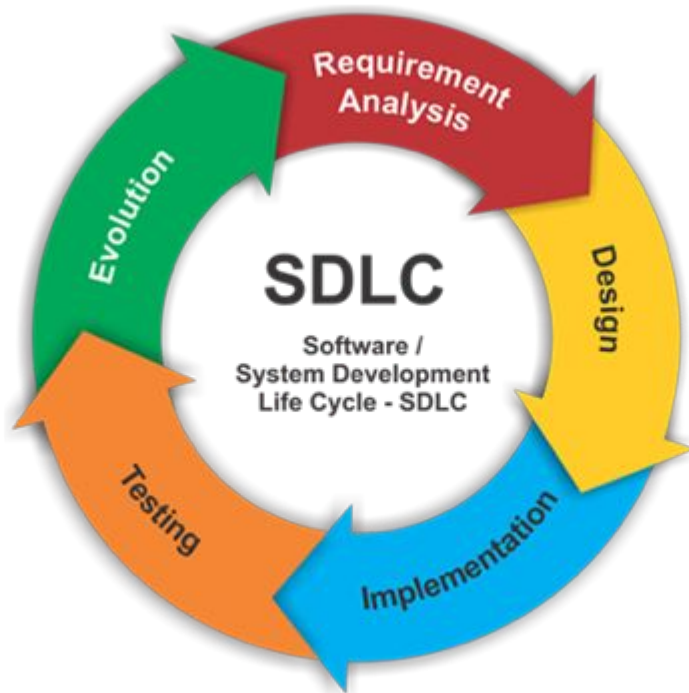
# Activity - CS01#2

Why A2Z Cinemas Ltd (ACL) wanted to start Mux Core Project (especially when they have other systems providing the required functionality)?

# SDLC vs project life cycle

# Software development projects – Success vs failure

**MODERN RESOLUTION FOR ALL PROJECTS**

|  | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| **SUCCESSFUL** | 29% | 27% | 31% | 28% | 29% |
| **CHALLENGED** | 49% | 56% | 50% | 55% | 52% |
| **FAILED** | 22% | 17% | 19% | 17% | 19% |

The Modern Resolution (OnTime, OnBudget, with a satisfactory result) of all software projects from FY2011–2015 within the new CHAOS database. Please note that for the rest of this report CHAOS Resolution will refer to the Modern Resolution definition not the Traditional Resolution definition.

https://www.infoq.com/articles/standish-chaos-2015

# Project Success
## Quick Reference Card

Based on CHAOS 2020: Beyond Infinity Overview. January'2021, QRC by Henny Portman

**failed 19%**

**challenged 50%**

**successful 31%**
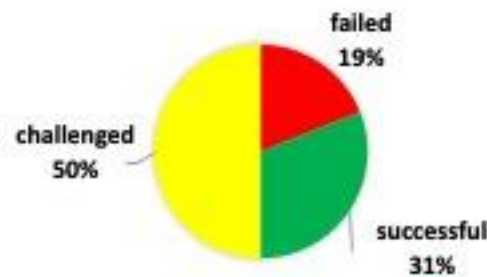
## Modern measurement (software projects)

Good Sponsor, Good Team, and Good Place are the only things we need to improve and build on to improve project performance.

**The Good Place** is where the sponsor and team work to create the product. It's made up of the people who support both sponsor and team. These people can be helpful or destructive. It's imperative that the organization work to improve their skills if a project is to succeed. This area is the hardest to mitigate, since each project is touched by so many people. Principles for a Good Place are:
- The Decision Latency Principle
- The Emotional Maturity Principle
- The Communication Principle
- The User Involvement Principle
- The Five Deadly Sins Principle
- The Negotiation Principle
- The Competency Principle
- The Optimization Principle
- The Rapid Execution Principle
- The Enterprise Architecture Principle

Successful project Resolution by Good Place Maturity Level:

| | |
|---|---|
| highly mature | 50% |
| mature | 34% |
| moderately mature | 23% |
| not mature | 23% |

**The Good Team** is the project's workhorse. They do the heavy lifting. The sponsor breathes life into the project, but the team takes that breath and uses it to create a viable product that the organization can use and from which it derives value. Since we recommend small teams, this is the second easiest area to improve. Principles for a Good Team are:
- The Influential Principle
- The Mindfulness Principle
- The Five Deadly Sins Principle
- The Problem-Solver Principle
- The Communication Principle
- The Acceptance Principle
- The Respectfulness Principle
- The Confrontationist Principle
- The Civility Principle
- The Driven Principle

Successful project Resolution by Good Team Maturity Level:

| | |
|---|---|
| highly mature | 66% |
| mature | 46% |
| moderately mature | 21% |
| not mature | 1% |

**The Good Sponsor** is the soul of the project. The sponsor breathes life into a project, and without the sponsor there is no project. Improving the skills of the project sponsor is the number-one factor of success – and also the easiest to improve upon, since each project has only one. Principles for a Good Sponsor are:
- The Decision Latency principle
- The Vision Principle
- The Work Smart Principle
- The Daydream Principle
- The Influence Principle
- The Passionate Principle
- The People Principle
- The Tension Principle
- The Torque Principle
- The Progress Principle

Successful project Resolution by Good Sponsor Maturity Level:

| | |
|---|---|
| highly mature | 67% |
| mature | 33% |
| moderately mature | 21% |
| not mature | 18% |

https://hennyportman.wordpress.com/2021/01/06/review-standish-group-chaos-2020-beyond-infinity/

# Activity - CS01#3

What are the possible reasons for unsuccessful projects (i.e., failed or challenged projects)?

# Evaluation scheme

| No | Name | Type | Duration | Weight | Day, Date, Session, Time |
|---|---|---|---|---|---|
| EC-1 | **Quiz 1** | Online | 1 week | 5% | Before mid-sem test |
|  | **Quiz 2** | Online | 1 week | 5% | After mid-sem test |
|  | **Assignment 1 and Assignment 2** | Report | ~ 2 weeks each | 10% + 10% | Before the mid-sem test and Before the comprehensive exam |
| EC-2 | **Mid-Semester Test** | Closed Book | 2 hours | 30% | Refer to the semester calendar |
| EC-3 | **Comprehensive Exam** | Open Book | 2 hours | 40% | Refer to the semester calendar |

# Individual assignments

- You will prepare and submit a report on a topic related to software project management in two parts
- You are expected to put in 10 to 12 hours of total effort in study, collecting relevant information, and preparation of the report
- Submissions will be checked for plagiarism using Turnitin tool (no marks will be awarded for reports with similarity score above 25%)
- Further details to be provided after topic assignment in next week

# Sample topics for the assignment

| |
|---|
| Software effort estimation |
| Project initiation or planning |
| Project management life cycle |
| Project risk management |
| Techniques for quality improvement |
| Project scheduling |
| Build or buy decision making |
| Project evaluation |

# Activity - CS01#4

For the Mux-Core project of ACL, identify objectives for

a) Mux-Core system and

b) Mux-Core project management