Course title: Software Development life cycle (SDLC)

Course Prerequisite: none

Course coordinator: INTELL VISION

Course overview

- This course provides deep understanding of software development life cycle
- The course Describes how software development life cycle works according to costs and removing pitfalls of software development projects.
- The course briefly describes SDLC methodology with phases
- The course explains Software development lifecycle models

Course objective

By the end of this course students should be able to:

- Understand the concept and importance of SDLC
- Familiarize SDLC phases
- Explore SDLC methodologies
- Have brief understanding of requirement gathering and analysis
- Explore agile and DevOPs practices

By incorporating the above objectives students can gain comprehensive understanding of the principles, methodologies and best practices involving software development life cycle.

Course content

1. **Introduction to software development life cycle (SDLC)**
    - Meaning of software development life cycle
    - Explanation of how software development life cycle works
    - Stages and best practices
2. **Methods of software development life cycle**

    2.1 Traditional methods

    - Waterfall model
    - Spiral model

    2.2 **Modern methods**

    - Scrum overview and workflow
    - Lean principles
    - Kanban
    - Extreme programming
    - DevOps background and concepts
3. **Module discussion forum**
4. **Module survey (optional)**

References

Books:

- Agile Software Development: Principles, Patterns, and Practices" by Robert C. Martin and Micah Martin
- "Software Testing: Principles and Practices" by Srinivasan Desikan and Gopalaswamy Ramesh
- "The DevOps Handbook: How to Create World-Class Agility, Reliability, and Security in Technology Organizations" by Gene Kim, Jez Humble, Patrick Debois, and John Willis