# Software Processes Introduction

#### **Indranil Saha**

Department of Computer Science and Engineering Indian Institute of Technology Kanpur



### What is Software Process

A set of related activities that leads to the production of a software product

#### **Fundamental Activities:**

- Software specification. The functionality of the software and constraints on its operation must be defined
- Software design and implementation. The software to meet the specification must be produced
- Software validation. The software must be validated to ensure that it does what the customer wants
- Software evolution. The software must evolve to meet changing customer needs

## Plan-Driven vs. Agile Process

- Plan-driven processes. All of the process activities are planned in advance and progress is measured against this plan
- Agile processes. Planning is incremental and it is easier to change the process to reflect changing customer requirements

## Plan-Driven vs. Agile Process

- Plan-driven processes. All of the process activities are planned in advance and progress is measured against this plan
- Agile processes. Planning is incremental and it is easier to change the process to reflect changing customer requirements

Each approach is suitable for different types of software.

## Plan-Driven vs. Agile Process

- Plan-driven processes. All of the process activities are planned in advance and progress is measured against this plan
- Agile processes. Planning is incremental and it is easier to change the process to reflect changing customer requirements

Each approach is suitable for different types of software.

Generally, you need to find a balance between plan-driven and agile processes.

### Software Process Models

A simplified representation of a software process.

Each process model represents a process from a particular perspective, and thus provides only partial information about that process.

 a process activity model shows the activities and their sequence but may not show the roles of the people involved in these activities.

# Software Processes Introduction

#### **Indranil Saha**

Department of Computer Science and Engineering Indian Institute of Technology Kanpur

