



Course Code : CSE 404

Course Title : Software Engineering and ISD Laboratory

Project name : Bus ticket booking management system

Experiment no: 05

Experiment name: Application of Software Development Models: Incremental model, Iterative model

**Submitted To**

**Dr. Mohammad Zahidur Rahman**

Professor

**Dr. Md. Humayun Kabir**

Professor

Department of Computer Science & Engineering  
Jahangirnagar University, Savar.

Group: 02

Sl	Class Roll	Name
01	342	Tama Shil
02	370	Prokash Maitra
03	374	Mubasher adnan jihad
04	375	Pritam Saha



Pritam Saha  
ID: 375

Incremental model:

Incremental model involves developing the system in small, manageable, increments or iterations. Each iteration adds new features or functionalities to the system, building upon the previous version. This approach allows for continuous improvement, quick feedback, and the availability to adapt changing requirements.

Incremental model for banking system:

1st increment:

1st increment includes basic account management, basic user management, basic employee management, editing documentation, atm information, documentation.

2nd increment: A

more details about account user employee, atm information.



documentation on production capabilities ,

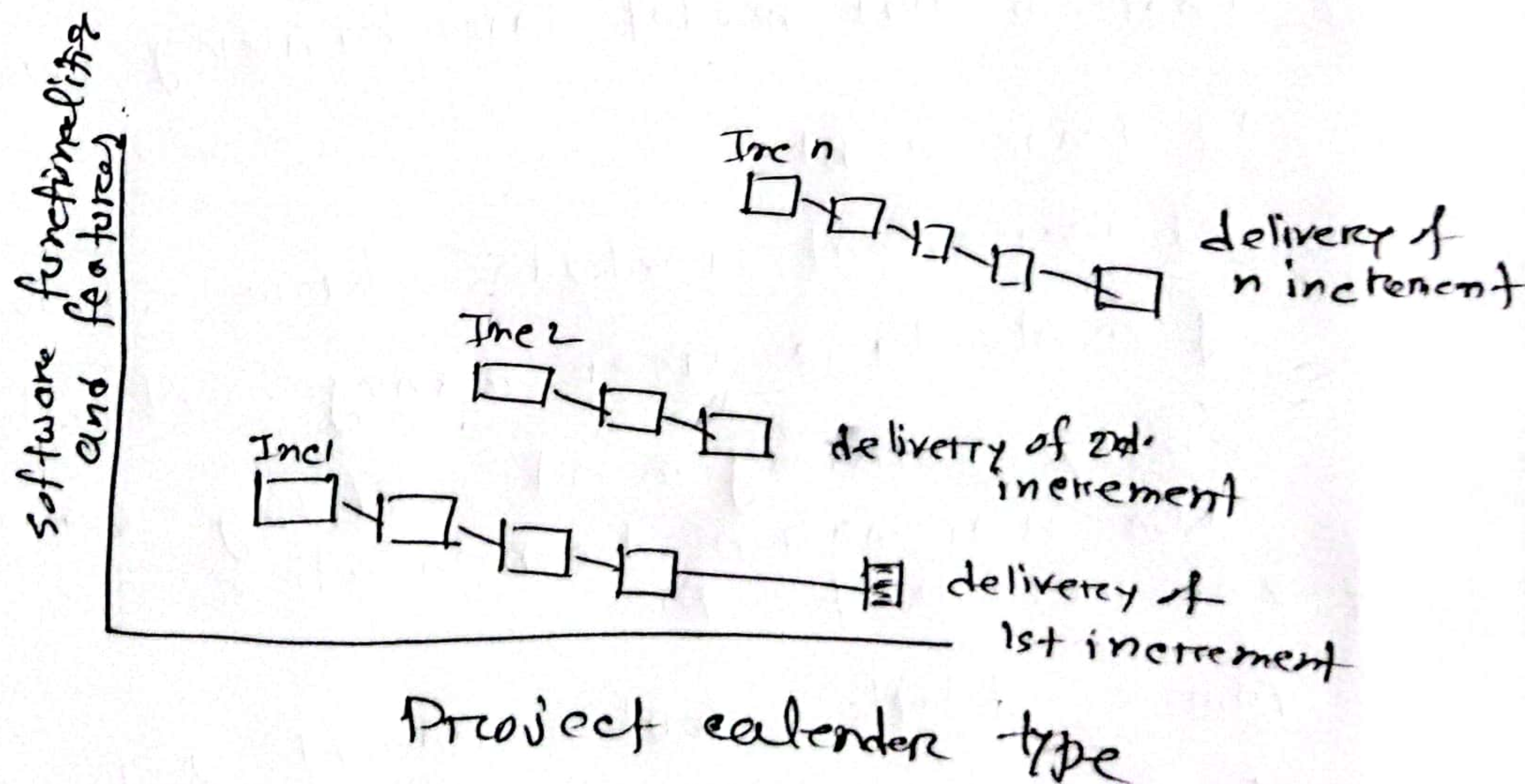
3rd increment:

Spelling and grammar checking that will update the software even more,

4th increment:

Advance face layout capabilities. This step includes the complete software layout for the module. which will include:

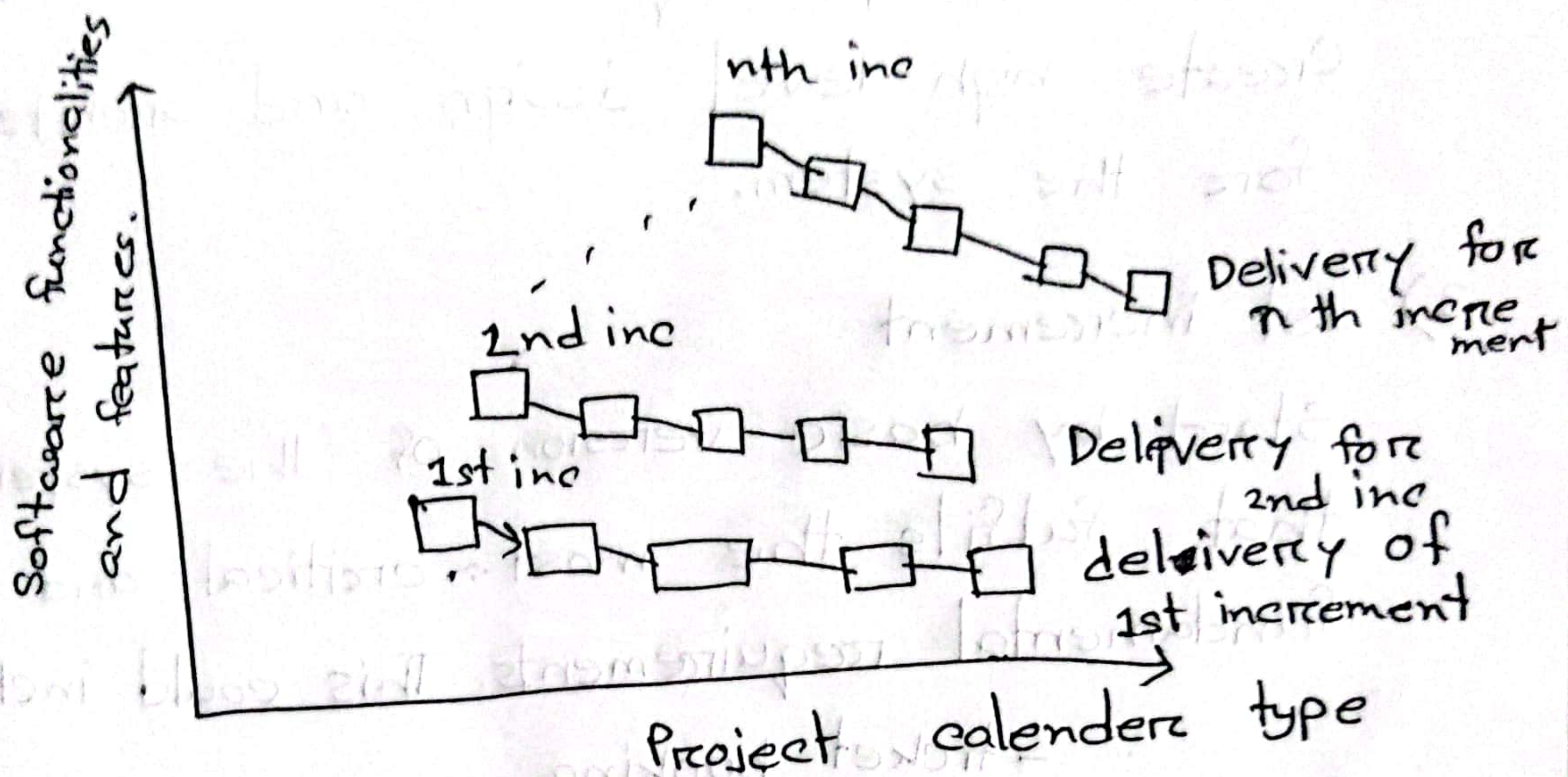
1. software requirement.
2. Use case
3. Activity.
4. UML etc.





Tama shil  
ID: 342

## Incremental model for bus ticket booking management system -



Here is step by step outline on how the incremental model can be applied to bus ticket management system -

### 1) Requirement gathering

Gather all the initial requirements for the bus ticket management system. This includes understanding the needs of the bus company, & .



- Bus
- Users
- Admin

2) Design and planning  
Create high level design and architecture for the system.

3) 1st increment

Start by basic version of the system that fulfils the most critical and fundamental requirements. This could include-

- ticket booking
- seat selection
- Payment process.

4) 2nd increment

Based on the feedback and additional requirements, develop the second increment.

This could include-

- Enhancing existing functionalities
- Supporting on different payment
- Documentations on production capabilities.



3rd increment

spelling and grammar checking of the system.

4th increment

Advance face layout capabilities. Ensure that each increment integrates smoothly with the existing systems. The step includes the final look of the modules.



Name : Prokash Maitra

Roll : 370

Project : Bus Ticket Management System

Part : Iterative Model

Implementing the iterative Model in a Bus Ticket Management system involves breaking down the development process into a series of iterative cycles, each focusing on specific functionality and features.

1. Requirement Gathering: Gather initial requirements from stakeholders, including bus operators.

2. Iteration-1, Basic Ticket Booking: In first iteration, focus on developing the core functionality of ticket booking.

3. Iteration-2-User Management and Authentication: In this iteration, add user authentication and Management features. ~~Implement~~ Implement user registration.



login and password recovery functionality.

#### 4. Iteration-3-Seat Availability and Booking Optimization

Enhance the ticket booking system to display real-time seat availability.

#### 5. Iteration-4-Payment Enhancement: Improve the payment system by adding support for different payment gateways and methods.

#### 6. Iteration-5-Reporting and Analytics: Implement reporting features for bus operators and administrations to track ticket sales, revenue, and other performance metrics.



Name: Mubashere Adnan Jihad

Roll : 374

Implementing the iterative model in a Bus Ticket Management system.

iteration-7: Refinement and Bug fixes: In this iteration, focus on refining the user interface.

iteration-8: Bus operator integration: Integrate the system with bus operator system

iteration-9: Mobile App Development: Develop a mobile application for passengers to book tickets on the go.

iteration-10: Accessibility & Localization: Enhance the system to support multiple languages & consider accessibility features.

iteration-11: Security & Scalability: focus on security enhancements to protect user data and prevent unauthorized access.

iteration-12: Feedback & User testing: Gather feedback from stakeholders, bus operators and end users.