

MAJOR / MINOR PROJECT ABSTRACT [Form - 1] (YEAR - 2025)

NAME OF LAB COORDINATOR: Dr. Priyanka Yadav

TITLE OF PROJECT: Interest Calculation System for Retail Bank

PROJECT TRACK: (Tick the appropriate one / ones)

| | | | | |
|------------------------|---|--|---|---------------------------|
| 1. R&D (Innovation) | 2. CONSULTANCY (Fetched from Industry) | 3. STARTUP (Self-Business Initiative) | 4. PROJECT POOL (From IBM / INFOSYS) | 5. HARDWARE / EMBEDDED |
|------------------------|---|--|---|---------------------------|

BRIEF INTRODUCTION OF PROJECT:

This project automates the interest calculation process for a retail bank. It calculates daily interest for accounts with positive balance, dynamically adjusting for deposits and withdrawals. The cumulative interest is stored daily and credited to the customer. The system also includes customer and admin portals for account management, transaction, and real-time interest.

TOOLS / TECHNOLOGIES TO BE USED:

| NAME OF TOOL / TECHNOLOGY | VERSION | SOFTWARE / HARDWARE | PURPOSE OF USE |
|---------------------------|---------|------------------------|----------------------------------|
| Node JS | | Software | Backend environment |
| MongoDB | | Software | Database |
| React JS | | Software | Frontend environment / Framework |
| Express JS | | Software | Backend framework |
| Git / Github | | Software | Version Control |

PROPOSED PROJECT MODULES:

| | NAME OF MODULE | PROPOSED FUNCTIONALITY IN PROJECT |
|---|-----------------------------------|---|
| 1 | Account Management Module | Handle user acc. and provide GUI |
| 2 | Interest Calculation Engine | Calculate daily interest according to acc. balance |
| 3 | Transaction Management Module | Manage deposits & withdrawal |
| 4 | Cumulative interest Storage | Daily Interest Table Management |
| 5 | Monthly interest Crediting Module | At the end of month transfer cumulative interest amt. |
| 6 | Admin Dashboard | Interface for Admin |
| 7 | Customer Portal | Interface for Customer |

TEAM MEMBER DETAILS:

| STUDENT NAME | CLASS & GROUP | MOBILE No. | EXPERTISE AREA | ROLE IN PROJECT |
|--------------------|---------------|------------|----------------|--------------------|
| Anand Tripathi | IT(A) G1 | 9269021678 | Backend | Full Stack |
| Chetan Prakash Uys | IT(A) G1 | 8442050661 | Frontend | Frontend developer |
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NOTE: 1. This form is to be submitted by a team of maximum 4 students in the starting of semester to lab coordinator.
2. Students must keep a Xerox copy of this form as reference for project work and attach it to final report.