Presentation on establishment of Smart Classroom and Digitization in Government Industrial Training Institutes

Current Challenges & Opportunities

School Closure Has Mandated Online Learning

Most of the Students don't have access to Smartphones and Laptops

Systematic Approach for National Education Policy 2020

Supporting Platform for Online and Classroom Teaching Learning

Quality Education Delivery at Rural parts of State

Uniform Profile and Credit System for Students & Faculties

Proposed
Scope of Work
Overview

Proposed Scope of Work Overview

Digital Initiative for

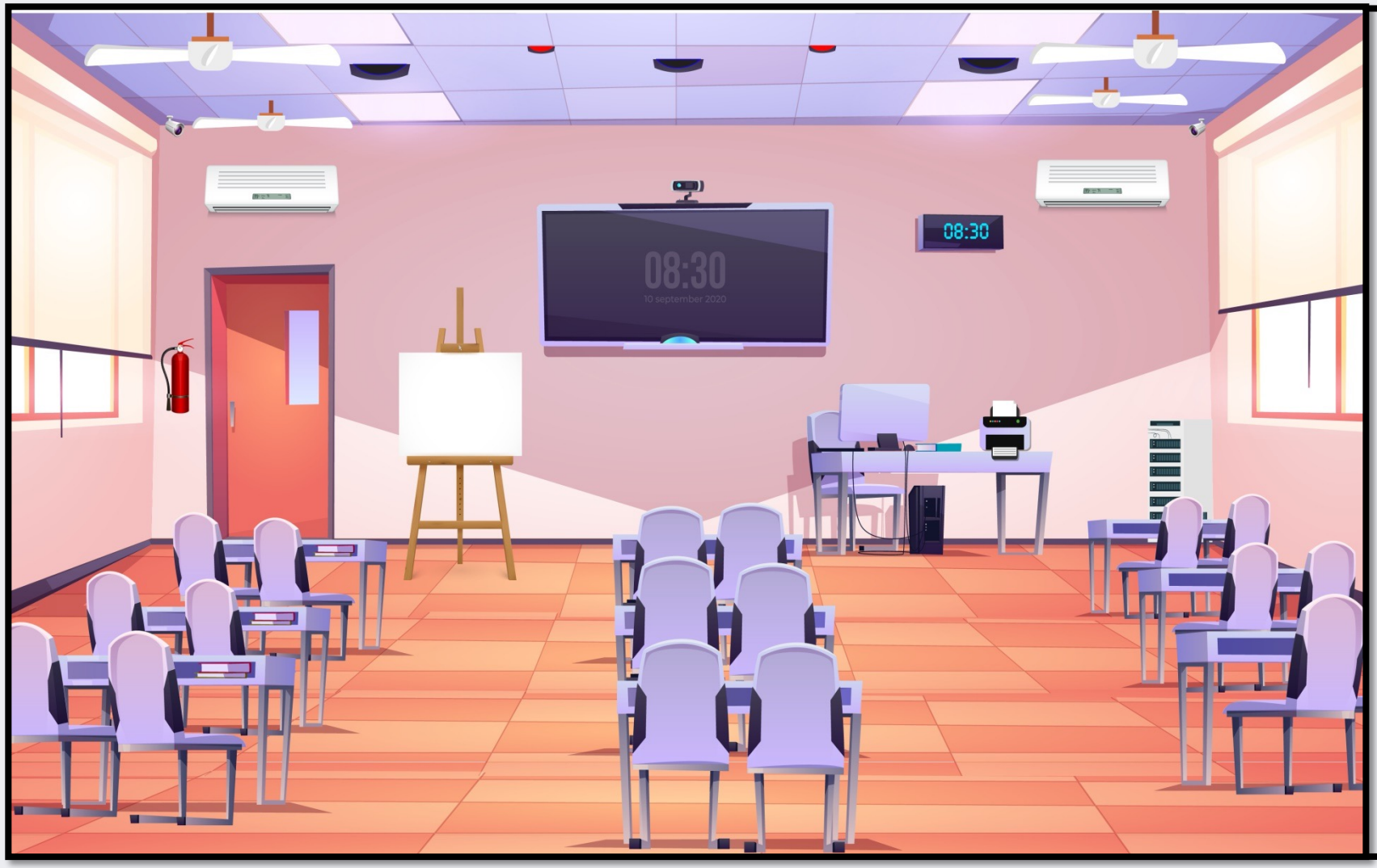
Industrial Training Institutes

In State

- Creation of Smart Classroom
- Digital content
- Facial Recognition Based Biometric Attendance
- TLMS

Creation of
Smart Classroom

Layout Smart Classroom



Components of Smart Classroom

- Interactive Flat Panel Display with OPS
- Digital Content
- Audio Speakers
- Biometric Attendance System
- Uninterrupted Power Supply
- Electrification, Deployment & Installation

Proposed Smart Classroom

- Technology equipped with a **specialized software**, **assistive listening devices** and **audio/visual capabilities** in a classroom
- Access to **infinite methods of teaching**
- **Learning and growing together** as a unit.
- The **opportunity** to provide students with quality education
- Better **concept understanding**
- Improvement in **reading and comprehension skills**
- Gain in **academic excellence**

Proposed
Digital Content

Proposed Digital Content

Educational Content

- Syllabus approved by DGT for various trades
- Other relevant e-books and e-contents
- Illustration based videos
- Study reference materials and supplementary content

Supporting Platform for Education Delivery

- Academic Management & Assessment
- Learning Management System
- Knowledge forum
- E-Library

Fitter	Electrician	Carpenter	Welder	Mechanic
Blacksmith	IT Engineer	Network operator	Plumber	Mason

Face Recognition Based Biometric Attendance System

Challenges With Traditional Attendance System

Laborious and Redundant activity

Wastage of precious teaching time

Human error
Proxy attendance

Difficult manual record keeping

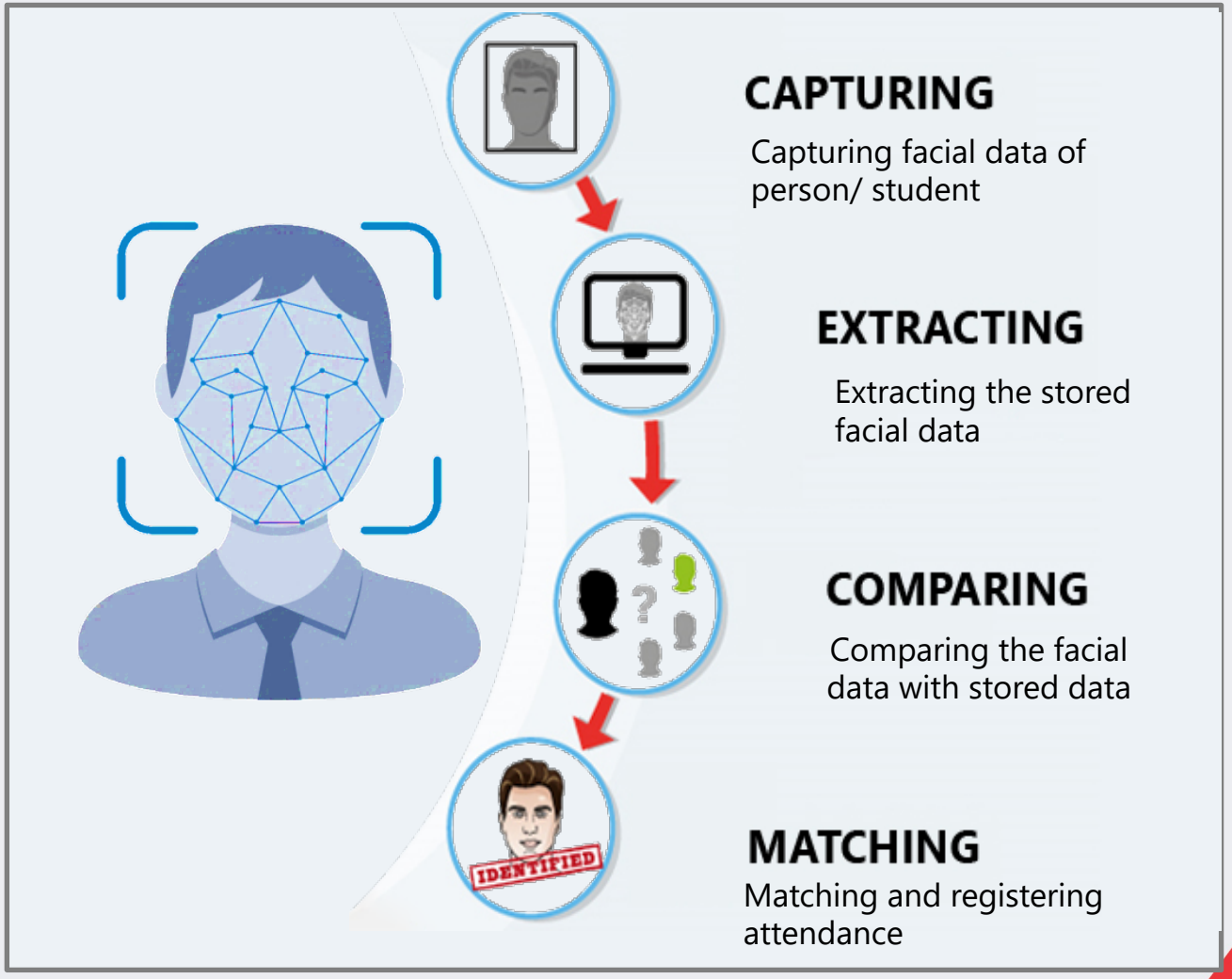
Lack of secured storage & retrieval

Lack of Instant Dynamic Reports

Difficult inter-departmental assessment

Solution: Face Recognition Based Attendance

- Touch-less attendance system post COVID-19 pandemic
- Faster & automated attendance process
- Automation and simplification of attendance process
- Passive identification of students
- Avoid false / proxy attendance
- Centralized monitoring & reports on attendance
- AI based machine learning approach



Methodology: How Face Recognition Works

Components:

High Resolution Camera

Computing Device

Software

Internet Connectivity

Image capturing by camera → Face detection & comparison with known database → Attendance Marking → Analytics and report generation

Features

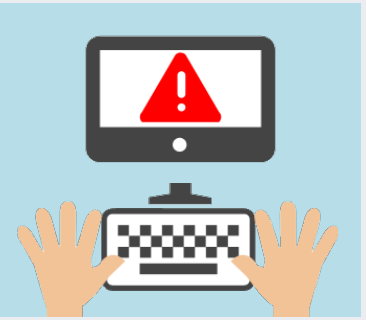
- Admin dashboard for centralized monitoring
- Students' and staff directory
- Multiple in-out
- Customizable attendance marking table
- Unknown person identification
- Reports and attendance data analytics
- Controlled access to system
- On demand live streaming of classroom
- Cloud based storage

Benefits

Safe, Touch Less Solution in Covid Times

Live Monitoring of Classrooms

Time saving Automatic Attendance Marking



Eliminate Human Error Proxy Attendance

Quick Decisions Based on Analytic Insights

Monitoring for Teachers, Admin Staff and Parents

Instant Data Availability Dynamic Report Generation

Secured Cloud-Based Data Storage

Extended Benefits

- Keep check on absenteeism & drop-out percentage
- Performance assessment of schools and teachers
- Keep eye on implementation of schemes like Mid Day Meals
- Over education outcome improvement

Proposed

Teaching Learning Management System

TLMS

TLMS: Digital Backbone of Education

- Process Standardization and Digitization
- Integrated modules support all processes of Lecture Delivery;
- Creating uniform, organized and efficient educational system

Knowledge Support:

- New Topics and Discussions
- Student Groups & Group Study
- Educational Materials
- Online Notes & E Journals
- Study Planner
- Videos
- Internal Mailing and Communication

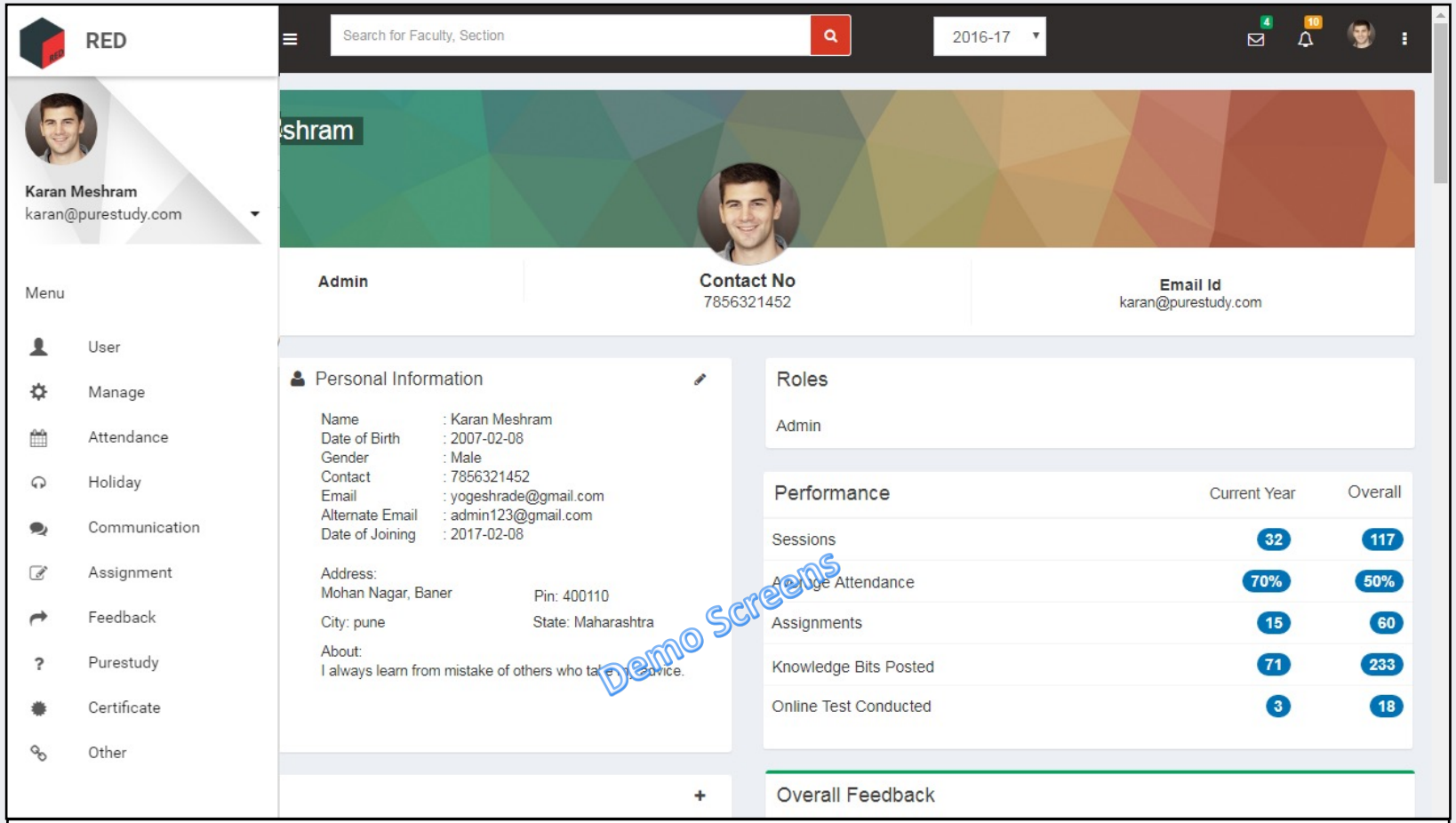
Academic Management:

- Syllabus & Lecture Scheduler
- Attendance
- Assignment
- Understanding
- Feedback & Audit
- Class test & Online Exam
- Performance & Outcome
- Dynamic Reports

Assesment / Exam:

Specific focus on vivas and objective based on the understanding and application of subject

Demo: Student Profile

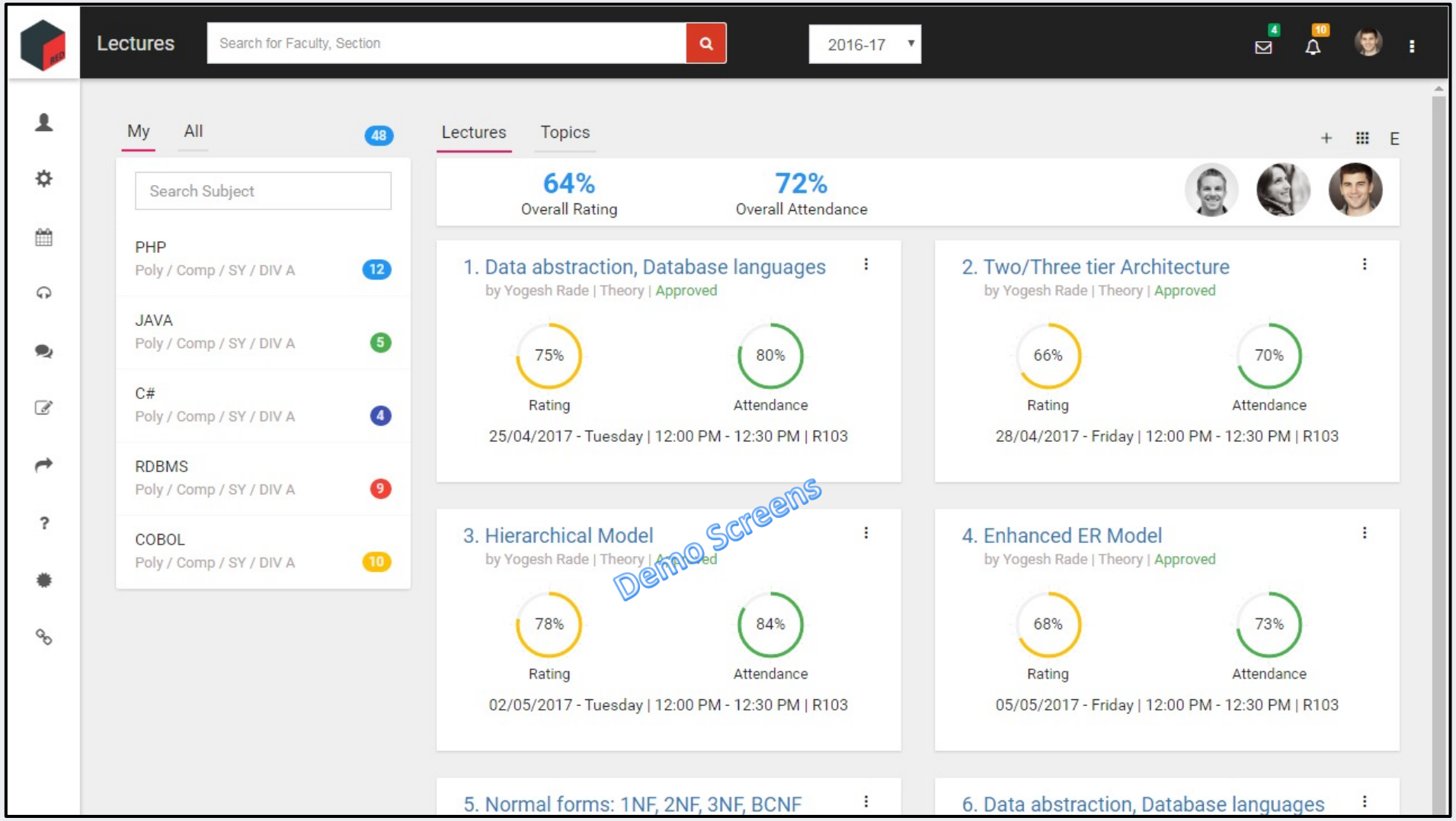


- One User One Account -

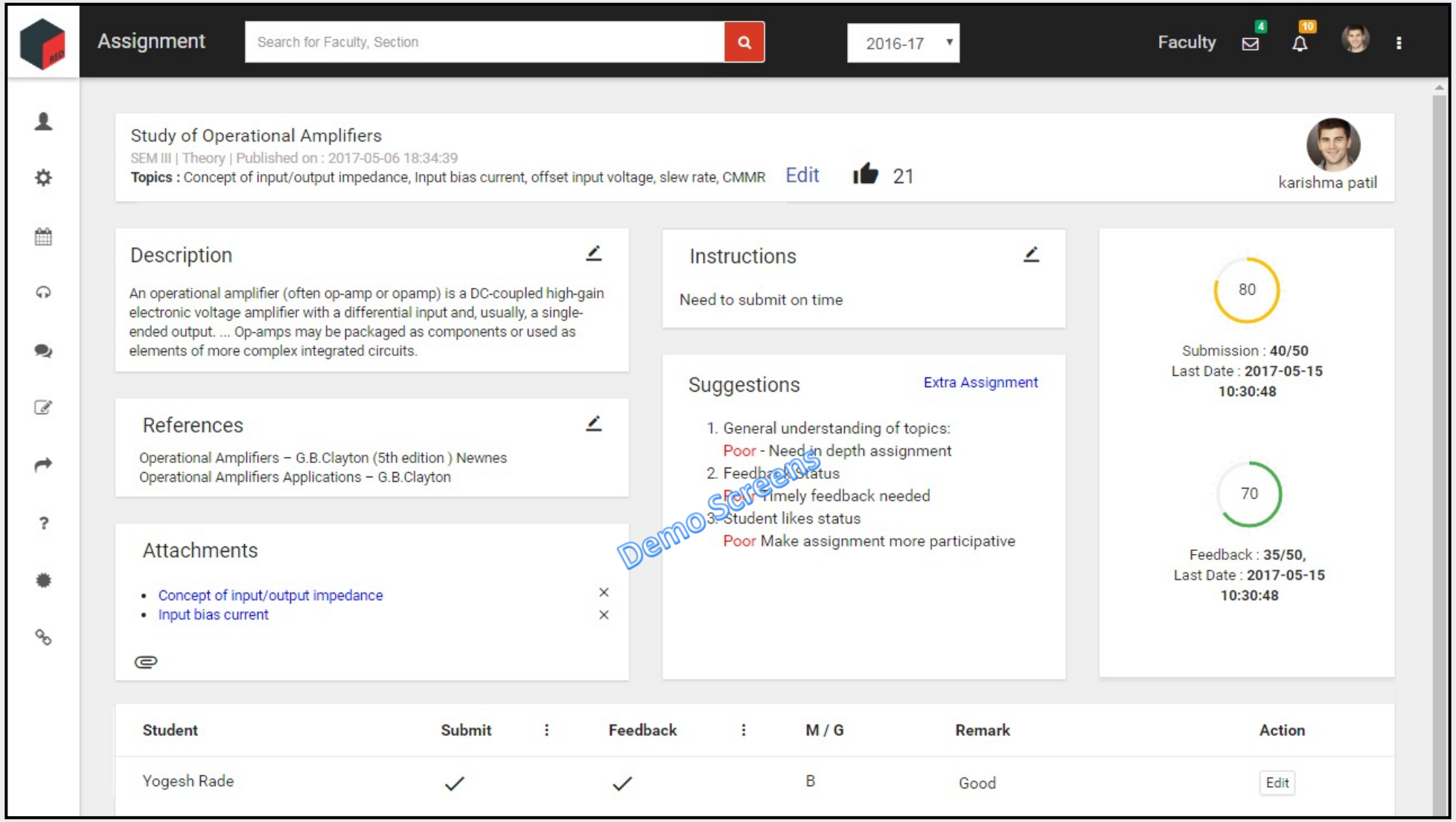
- All activities of any user are managed through single account -

- For Students, Faculties, Admins, HODs, Principals, etc. -

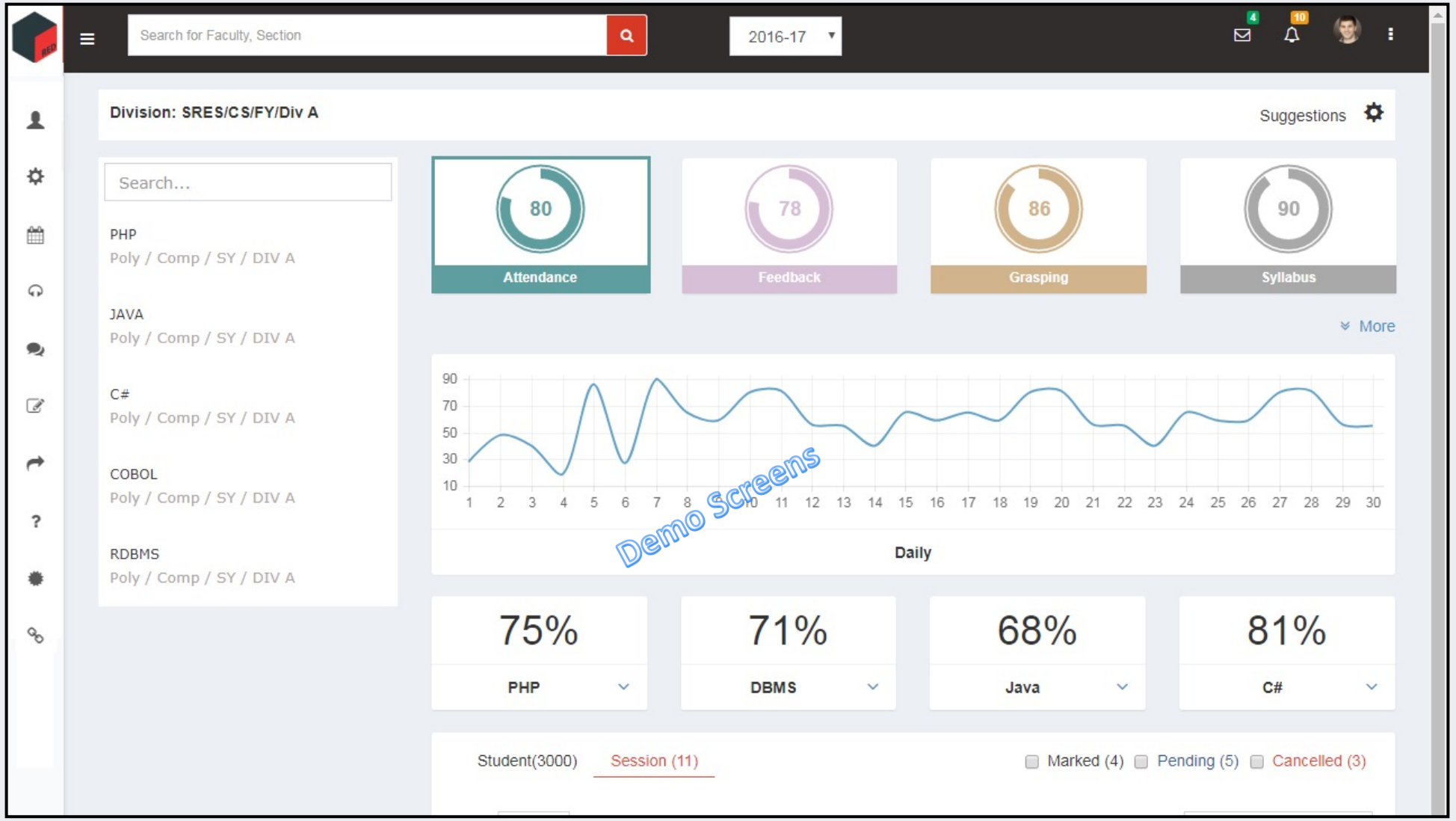
Demo: Lectures



Demo: Assignment



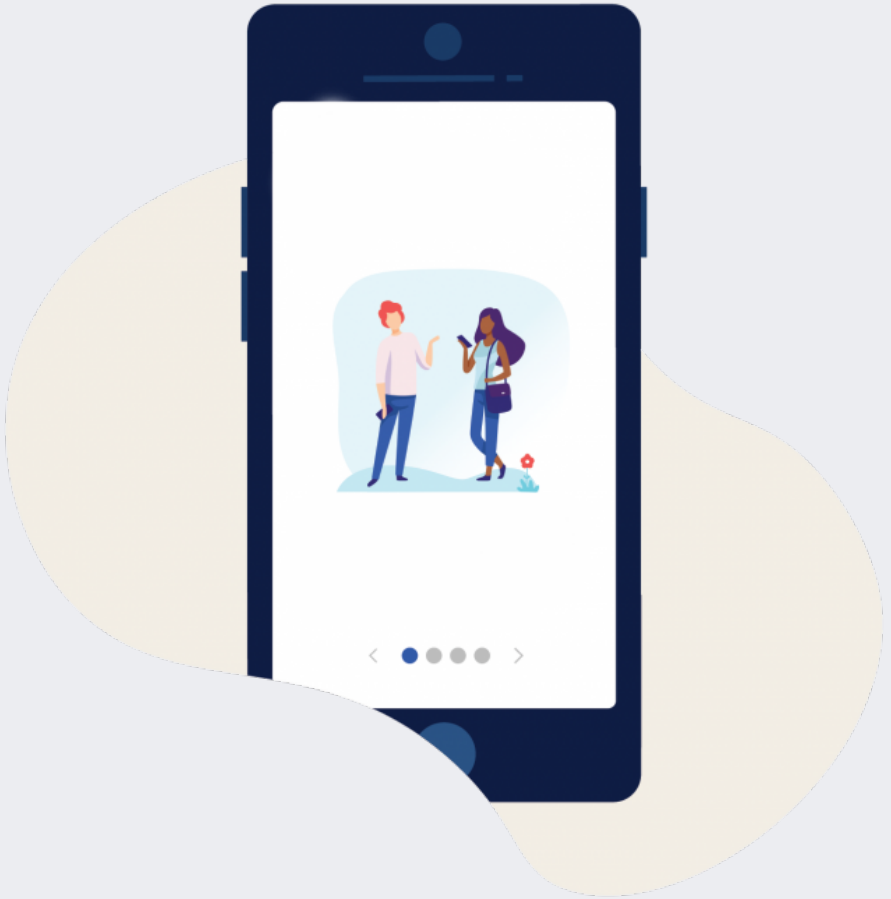
Demo: Division-wise User Analytics



Proposed

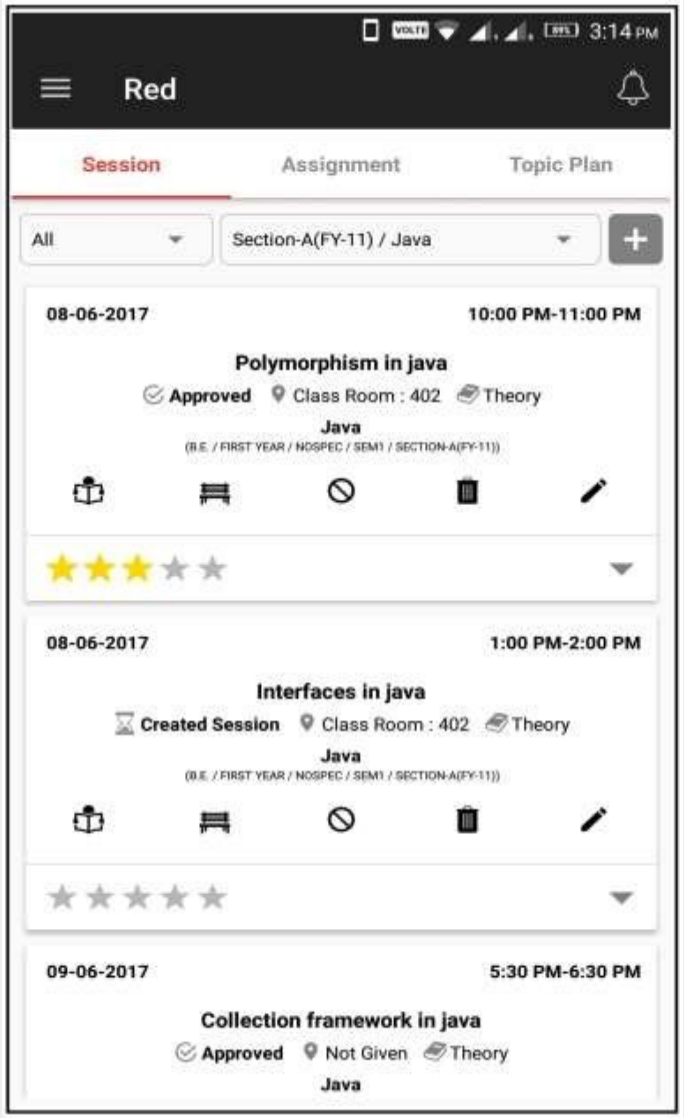
M-Campus

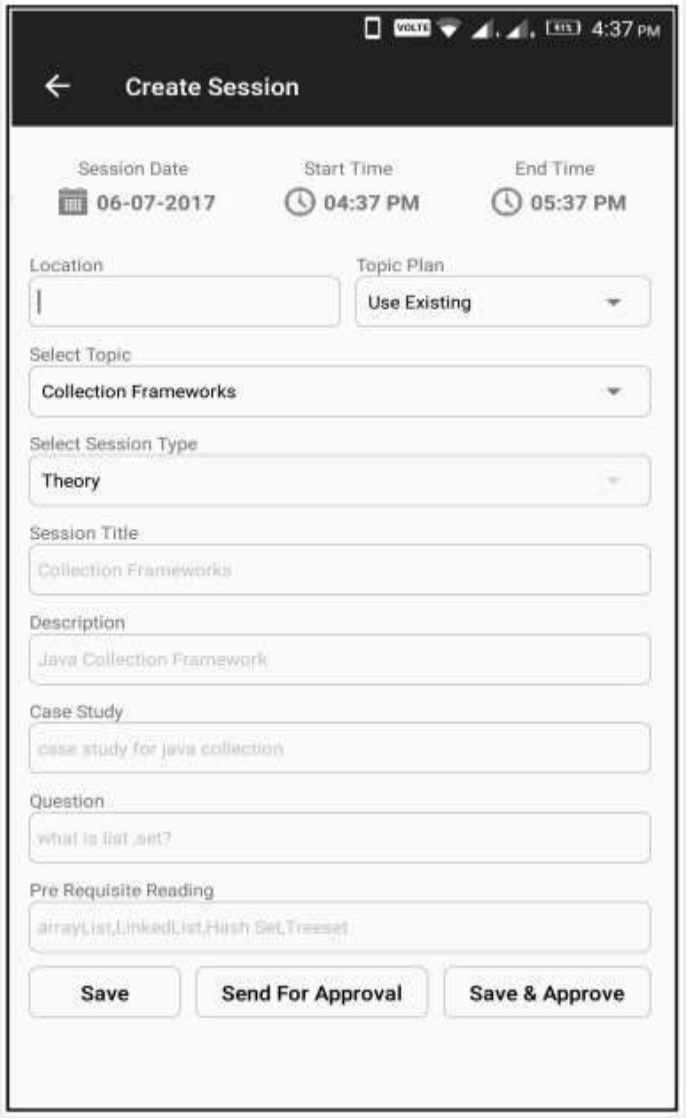
TLMS



M Campus: Campus on mobile / devices

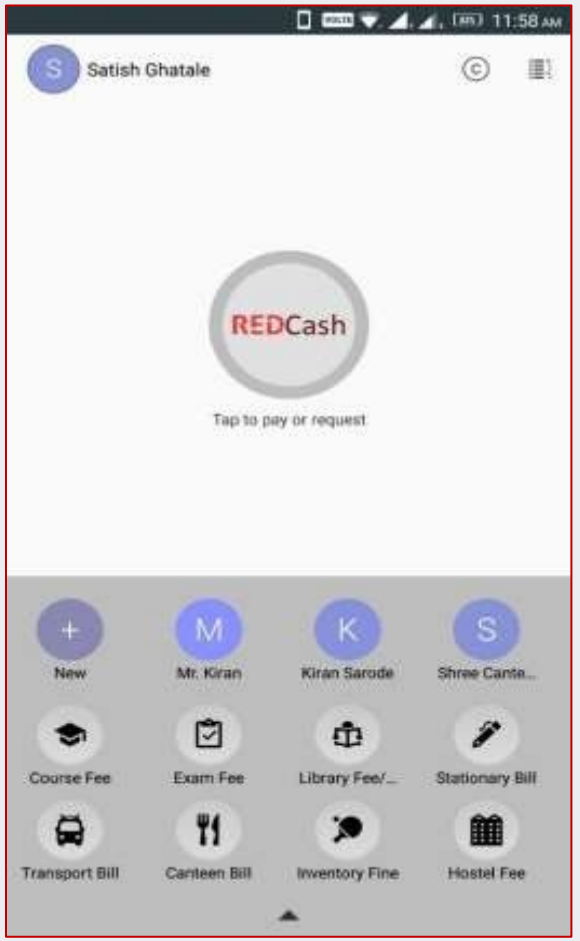
Supporting Lecture Delivery and Home Study





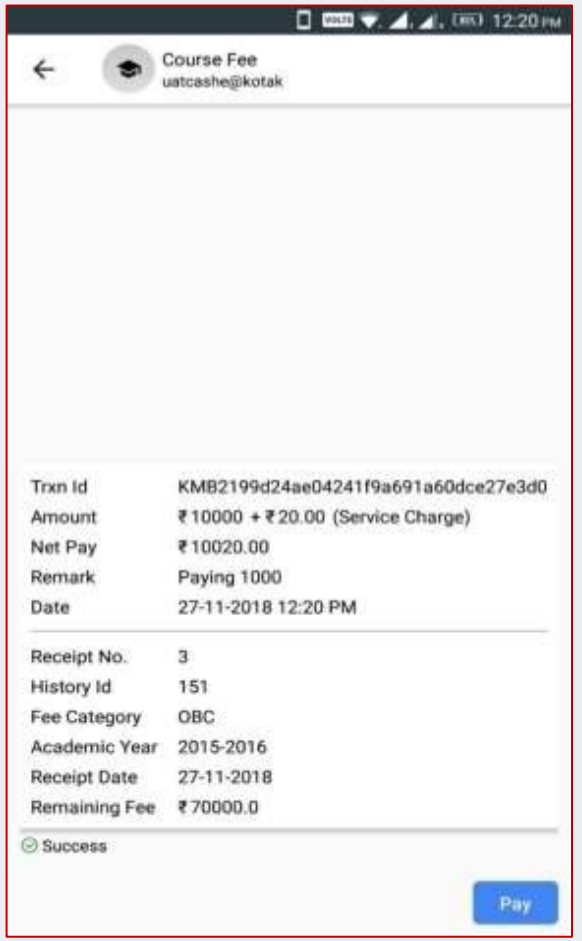
Academic Payments:

Integrated, Auto Calculation and Reconciliation Course Fees, Exam Fees, Stationary, etc.



Home Page

Campus Payments



Successful Transaction

Value Proposal

Continuity in Education
In current scenarios

Uniformity and
Quality in Education

Establishing
Credibility

Government Branding
Via Education Model

Digital Backbone of
Formal Education

Simple User friendly
Rural Penetration

Deep Reach and
High Impact

Improvising
Outcome

Barrier free
Education

Cost of
education

Employability
Enhancement

THANK YOU !