

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

Current Challenges & Opportunities



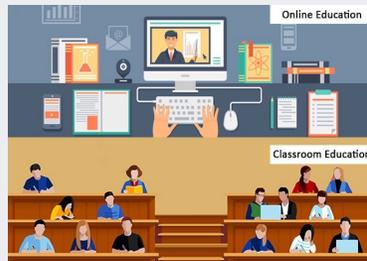
School Closure Has Mandated Online Learning



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

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

Fitter

Electrician

Blacksmith

IT Engineer

Supporting Platform for Education Delivery

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



Carpenter

Welder

Mechanic

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



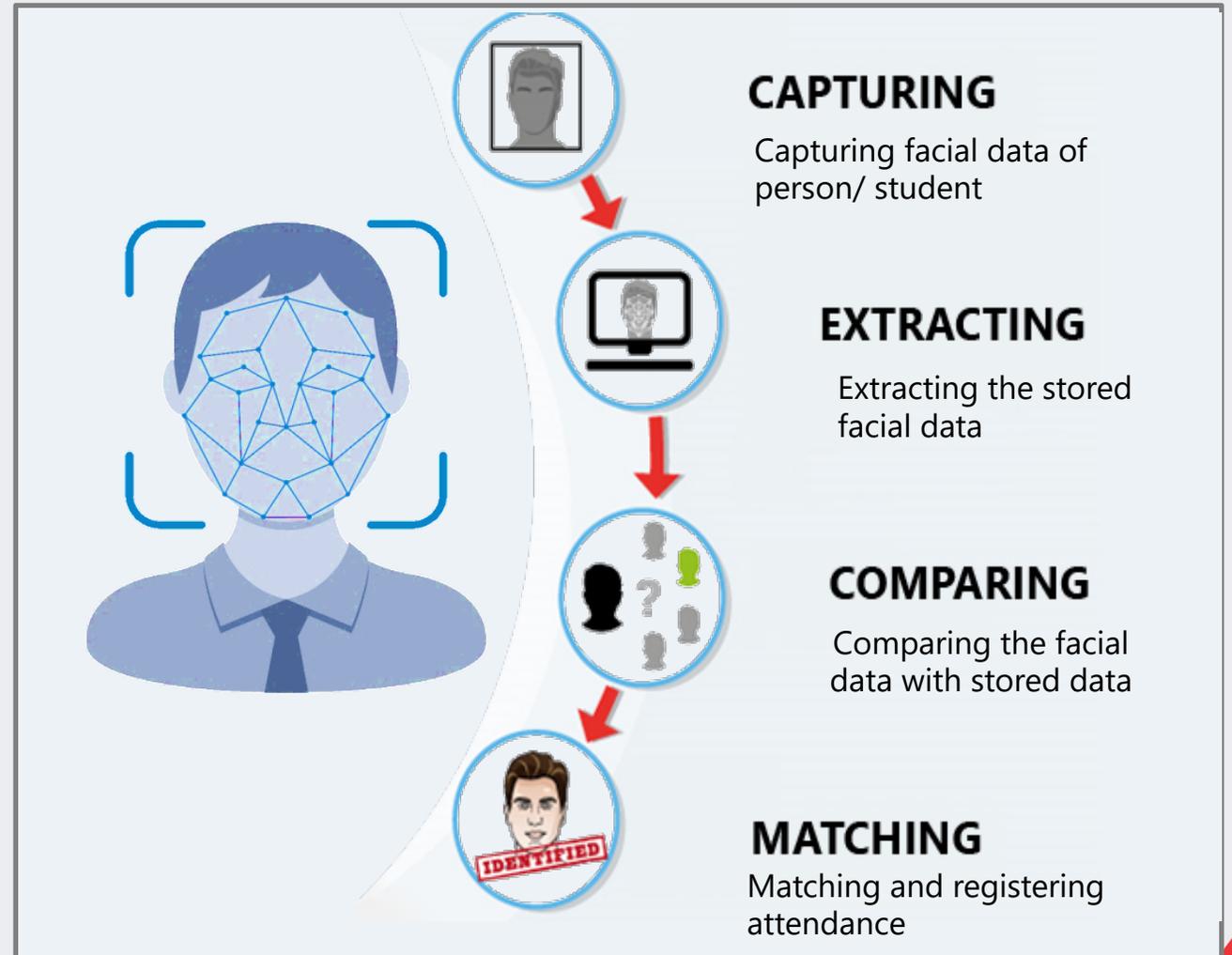
Lack of Instant
Dynamic Reports



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

 Software

 Computing Device

 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

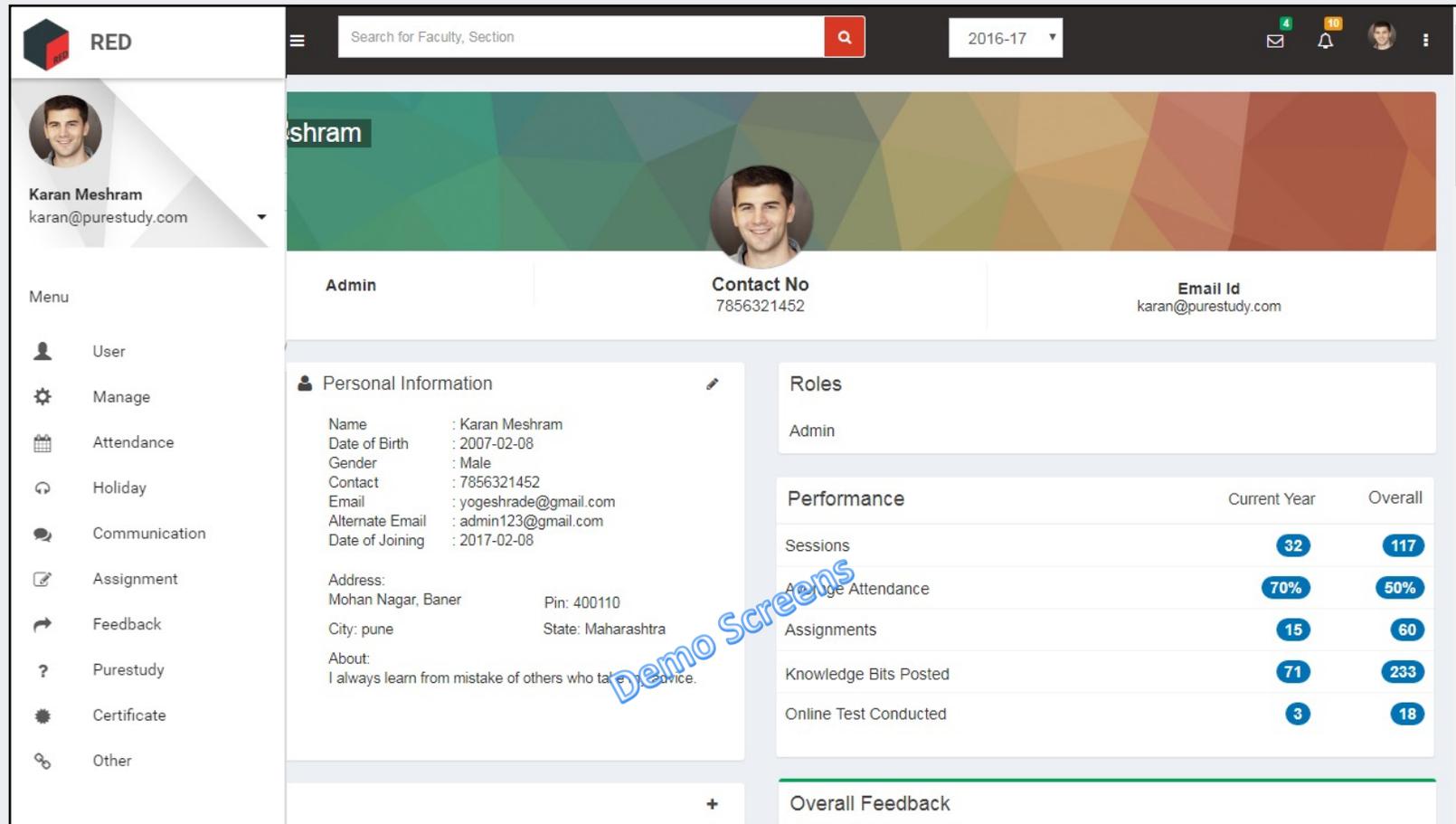
Academic Management:

- 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



RED Search for Faculty, Section 2016-17

Karan Meshram
karan@purestudy.com

Admin **Contact No** 7856321452 **Email Id** karan@purestudy.com

Personal Information

Name : Karan Meshram
Date of Birth : 2007-02-08
Gender : Male
Contact : 7856321452
Email : yogeshrade@gmail.com
Alternate Email : admin123@gmail.com
Date of Joining : 2017-02-08

Address:
Mohan Nagar, Baner Pin: 400110
City: pune State: Maharashtra

About:
I always learn from mistake of others who take advice.

Roles
Admin

Performance	Current Year	Overall
Sessions	32	117
Average Attendance	70%	50%
Assignments	15	60
Knowledge Bits Posted	71	233
Online Test Conducted	3	18

Overall Feedback

- One User One Account -

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

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

Demo: Lectures



Lectures

Search for Faculty, Section

2016-17

4 10

My All 48

Lectures Topics

Search Subject

- PHP
Poly / Comp / SY / DIV A 12
- JAVA
Poly / Comp / SY / DIV A 5
- C#
Poly / Comp / SY / DIV A 4
- RDBMS
Poly / Comp / SY / DIV A 9
- COBOL
Poly / Comp / SY / DIV A 10

64% Overall Rating

72% Overall Attendance

1. Data abstraction, Database languages
by Yogesh Rade | Theory | Approved

75% Rating

80% Attendance

25/04/2017 - Tuesday | 12:00 PM - 12:30 PM | R103

2. Two/Three tier Architecture
by Yogesh Rade | Theory | Approved

66% Rating

70% Attendance

28/04/2017 - Friday | 12:00 PM - 12:30 PM | R103

3. Hierarchical Model
by Yogesh Rade | Theory | Approved

78% Rating

84% Attendance

02/05/2017 - Tuesday | 12:00 PM - 12:30 PM | R103

4. Enhanced ER Model
by Yogesh Rade | Theory | Approved

68% Rating

73% Attendance

05/05/2017 - Friday | 12:00 PM - 12:30 PM | R103

5. Normal forms: 1NF, 2NF, 3NF, BCNF

6. Data abstraction, Database languages

Demo Screens

Demo: Assignment

Assignment

Search for Faculty, Section

2016-17

Faculty

Study of Operational Amplifiers

SEM III | Theory | Published on : 2017-05-06 18:34:39

Topics : Concept of input/output impedance, Input bias current, offset input voltage, slew rate, CMMR [Edit](#) 21

 karishma patil

Description

An operational amplifier (often op-amp or opamp) is a DC-coupled high-gain electronic voltage amplifier with a differential input and, usually, a single-ended output. ... Op-amps may be packaged as components or used as elements of more complex integrated circuits.

References

Operational Amplifiers – G.B.Clayton (5th edition) Newnes
Operational Amplifiers Applications – G.B.Clayton

Attachments

- Concept of input/output impedance
- Input bias current

Instructions

Need to submit on time

Suggestions

[Extra Assignment](#)

- General understanding of topics:
Poor - Need in depth assignment
- Feedback status
Poor - Timely feedback needed
- Student likes status
Poor Make assignment more participative

Submission Summary

80

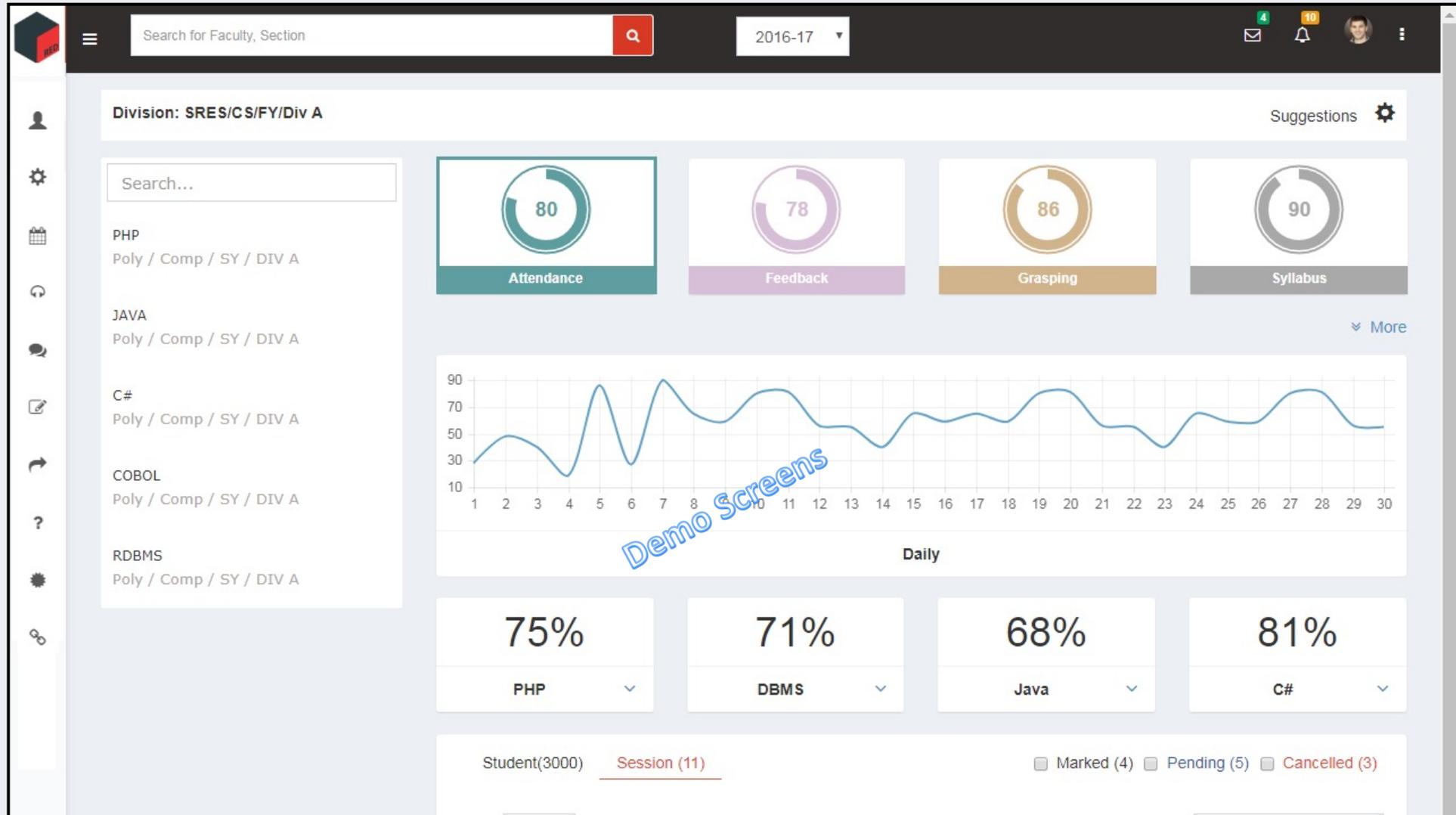
Submission : 40/50
Last Date : 2017-05-15 10:30:48

70

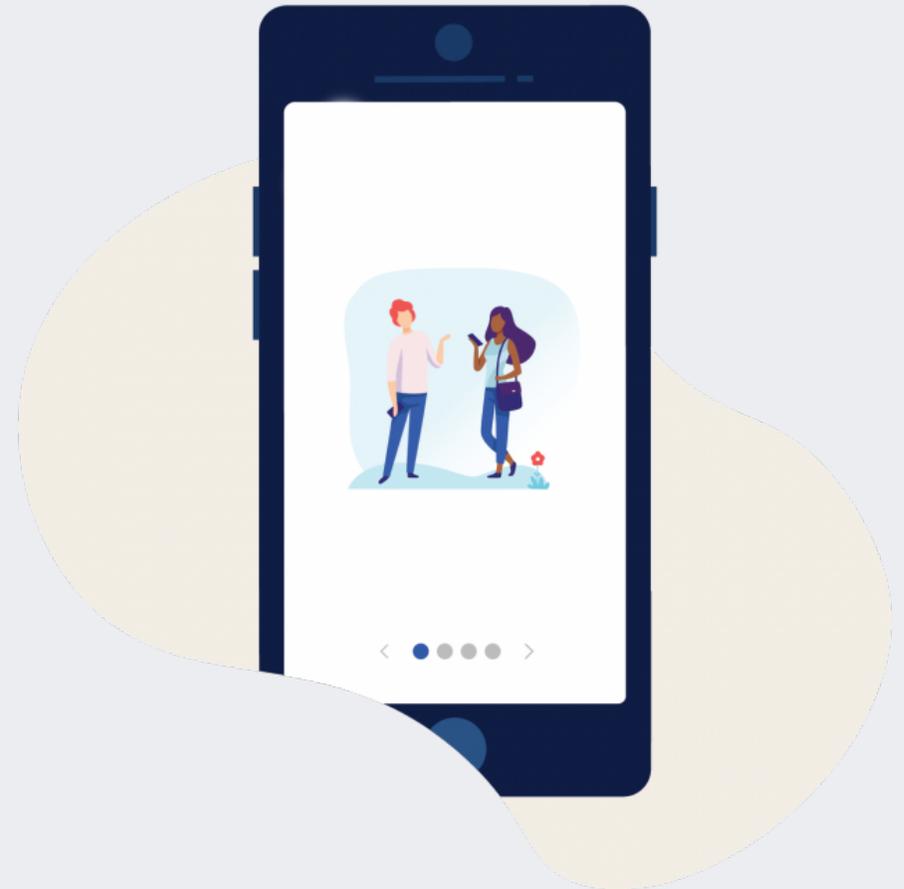
Feedback : 35/50,
Last Date : 2017-05-15 10:30:48

Student	Submit	Feedback	M / G	Remark	Action
Yogesh Rade	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	B	Good	<input type="button" value="Edit"/>

Demo: Division-wise User Analytics

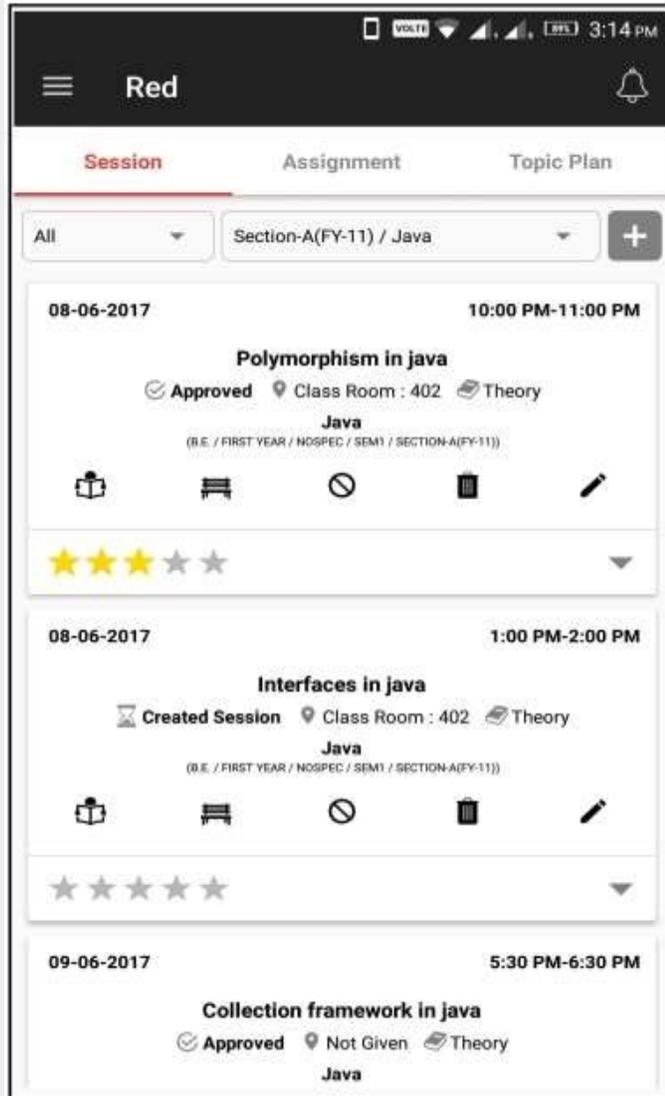


Proposed M-Campus TLMS



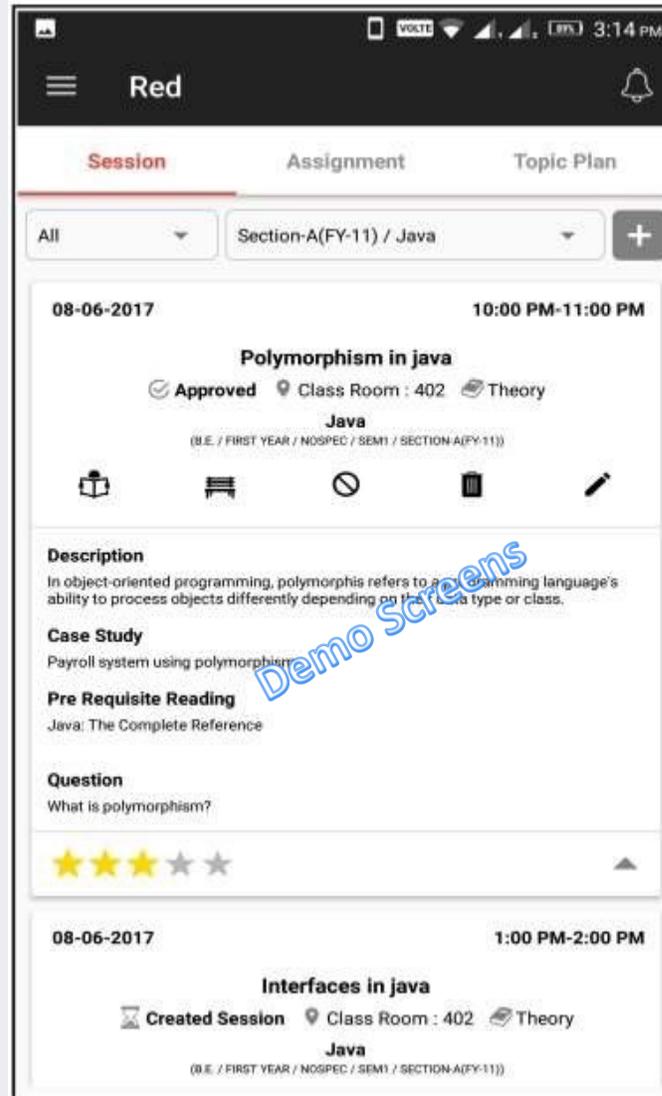
M Campus: Campus on mobile / devices

Supporting Lecture Delivery and Home Study



The screenshot shows the 'Red' app interface with a navigation bar at the top. Below the navigation bar, there are tabs for 'Session', 'Assignment', and 'Topic Plan'. The 'Session' tab is active. A dropdown menu shows 'All' and 'Section-A(FY-11) / Java'. The main content area displays a list of sessions:

- 08-06-2017 10:00 PM-11:00 PM**
Polymorphism in java
Approved Class Room : 402 Theory
Java
(B.E. / FIRST YEAR / NOSPEC / SEM1 / SECTION-A(FY-11))
- 08-06-2017 1:00 PM-2:00 PM**
Interfaces in java
Created Session Class Room : 402 Theory
Java
(B.E. / FIRST YEAR / NOSPEC / SEM1 / SECTION-A(FY-11))
- 09-06-2017 5:30 PM-6:30 PM**
Collection framework in java
Approved Not Given Theory
Java



The screenshot shows the details for the 'Polymorphism in java' session. It includes a description, case study, pre-requisite reading, and a question.

08-06-2017 10:00 PM-11:00 PM
Polymorphism in java
Approved Class Room : 402 Theory
Java
(B.E. / FIRST YEAR / NOSPEC / SEM1 / SECTION-A(FY-11))

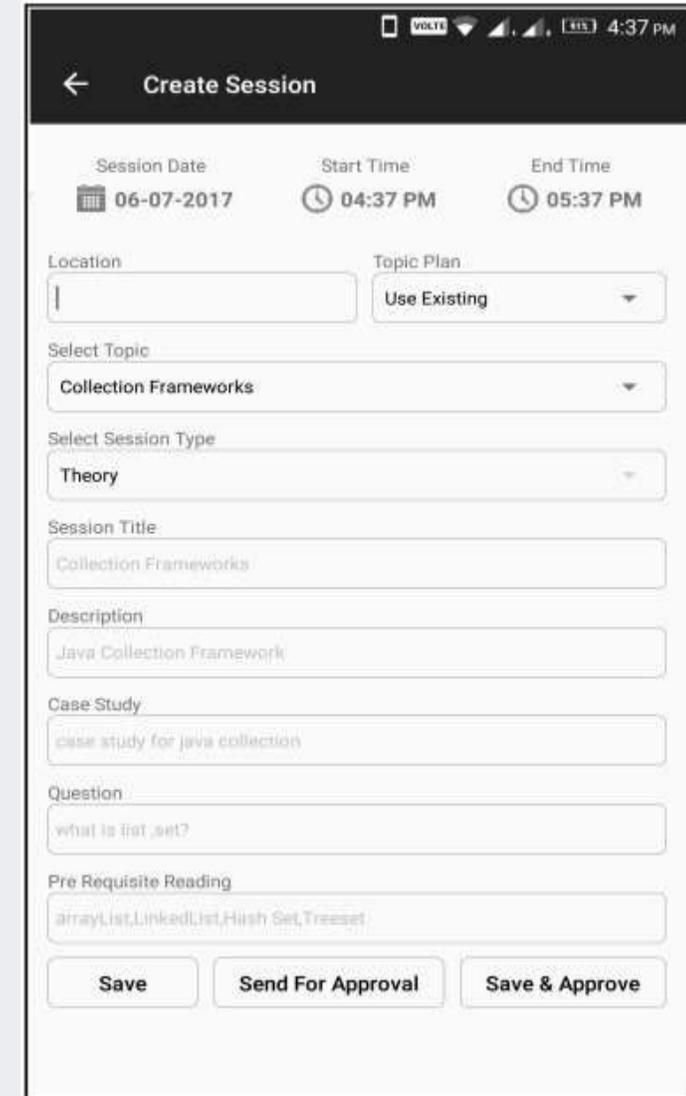
Description
In object-oriented programming, polymorphis refers to a programming language's ability to process objects differently depending on their data type or class.

Case Study
Payroll system using polymorphism

Pre Requisite Reading
Java: The Complete Reference

Question
What is polymorphism?

08-06-2017 1:00 PM-2:00 PM
Interfaces in java
Created Session Class Room : 402 Theory
Java
(B.E. / FIRST YEAR / NOSPEC / SEM1 / SECTION-A(FY-11))



The screenshot shows the 'Create Session' form. It includes fields for session date, start time, end time, location, topic plan, select topic, select session type, session title, description, case study, question, and pre-requisite reading.

Create Session

Session Date: 06-07-2017 Start Time: 04:37 PM End Time: 05:37 PM

Location: [] Topic Plan: Use Existing []

Select Topic: Collection Frameworks []

Select Session Type: Theory []

Session Title: Collection Frameworks []

Description: Java Collection Framework []

Case Study: case study for java collection []

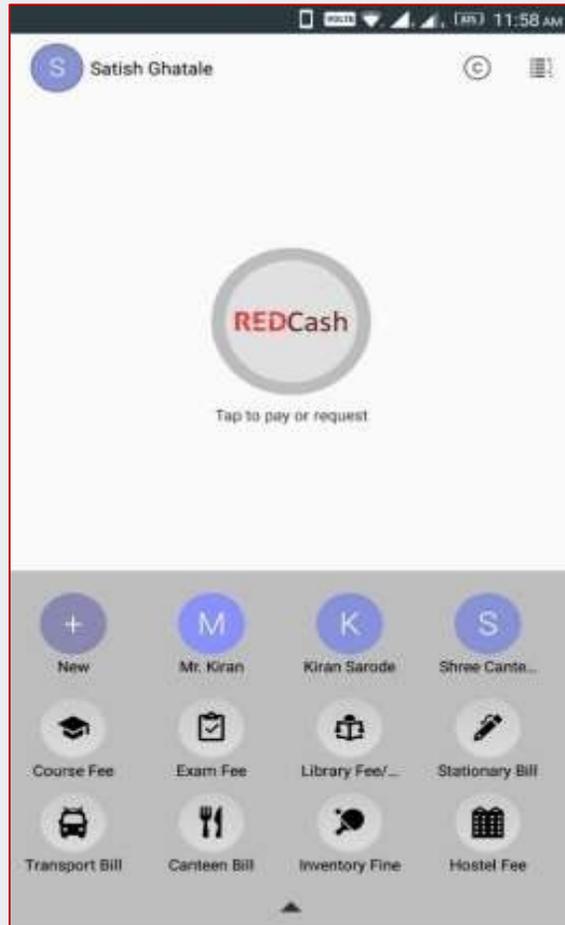
Question: what is list ,set? []

Pre Requisite Reading: arrayList,LinkedList,Hash Set,Treeset []

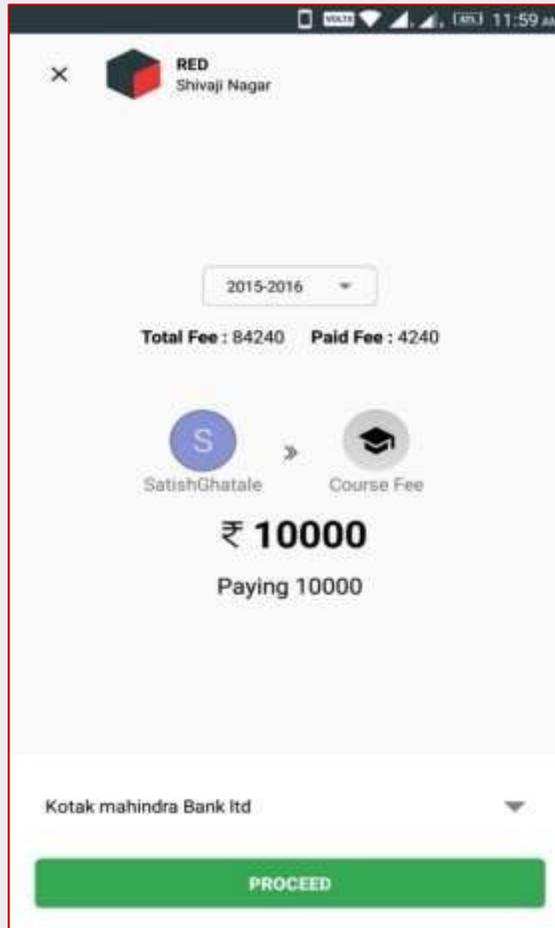
Save Send For Approval Save & Approve

Academic Payments:

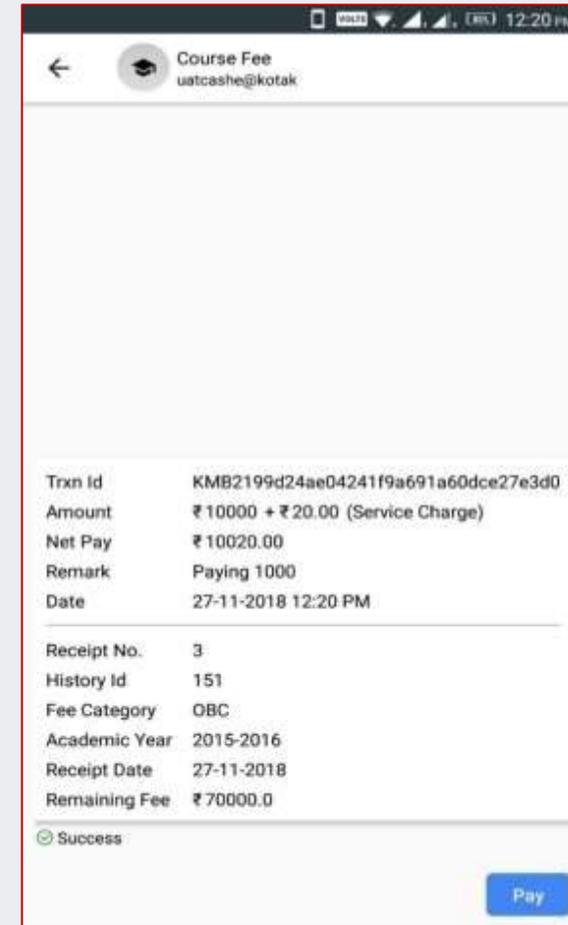
Integrated, Auto Calculation and Reconciliation Course Fees, Exam Fees, Stationary, etc.



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

Improving
Outcome

Barrier free
Education

Cost of
education

Employability
Enhancement

THANK YOU !