A Mini Project Report on

## Simple Social Media Platform to connect with college peers (Connecture)

Submitted in partial fulfillment of the requirements for the award of the degree of

### Bachelor of Engineering

in

### Computer Engineering

by

### Riddhi Narkar (19102003)

### Aditya Yadav (19102006)

### Devansh Katheria (19102027)

### Shauryan Singh (19102004)

Under the Guidance of

### Dr. Pravin Adivarekar



#### Department of Branch Name

A.P. Shah Institute of Technology G.B.Road, Kasarvadavli, Thane(W), Mumbai-400615

UNIVERSITY OF MUMBAI

#### Academic Year 2020-2021

This Mini Project Report entitled ***“Simple Social Media platform to connect with college peers (Connecture)”*** Submitted by ***“Riddhi Narkar” (19102003), “Aditya Yadav” (19102006), “Devansh Katheria” (19102027), “Shauryan Singh”(19102004)*** is approved for the partial fulfillment of the requirement for the award of the degree of ***Bachelor of Engineering*** in ***Computer Engineering*** from ***University of Mumbai*** .

Dr. Pravin Adivarekar

Guide

Prof. Sachin H Malave

Head Department of Computer Engineering

Place: A.P. Shah Institute of Technology, Thane

Date: 16/12/2020

This is to certify that the mini project entitled ***“Simple Social Media platform to connect with college peers (Connecture)”*** submitted by ***“Riddhi Narkar” (19102003), “Aditya Yadav” (19102006), “Devansh Katheria” (19102027), “Shauryan Singh”(19102004)*** for the partial fulfillment of the requirement for award of a degree ***Bachelor of Engineering*** in ***Computer Engineering*** to the University of Mumbai, is a bonafide work carried out during academic year 2020-2021.

Dr. Pravin Adivarekar

Guide

Prof. Sachin H Malave Dr. Uttam D.Kolekar Head Department of Computer Engineering Principal

External Examiner(s) 1.

2.

Place: A.P. Shah Institute of Technology, Thane Date: 16/12/2020

We declare that this written submission represents our ideas in our own words and where others’ ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that We have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

———————————————

(Signature)

———————————————

(Riddhi Narkar 19102003)

(Aditya Yadav 19102006)

(Devansh Katheria 19102027)

(Shauryan Singh 19102004)

Date: 16/12/2020

#### Abstract

This project is based on the concept of making new and meaningful connections. By providing access to all college peers on a single platform, getting to know peers with a similar interest can help to guide and inspire students. We already have many sophisticated social platforms to connect with people, but, a setup at an institute-level would significantly help to bind everyone by leveraging the ability to connect digitally.

1. Introduction 1

[1.1 Problem Definition . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1](#_TOC_250003)

[1.2 Objectives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2](#_TOC_250002)

[1.3 Scope . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2](#_TOC_250001)

1.4 Existing System/Project . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

1. Technology Stack 4
2. Benefits and Applications 5

3.1 Benefits for society . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5

3.2 Benefits for environment . . . . . . . . . . . . . . . . . . . . . . . . . . 5

3.3 Applications. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5

1. Project Design 6

4.1 Proposed System . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .6

4.2 Flow of Modules. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 7

4.3 Data Flow Diagram. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8

**5 Annexure A**

5.1 Gantt Chart. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9

Appendices 10

Appendix-A . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10

1.1 Intrusion Detection System . . . . . . . . . . . . . . . . . . . . . . . . . . . 1

1.1 An Example of a Table . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2

5.1 Wormhole Attack Comparison with AODV Protocol . . . . . . . . . . . . . . 6

# List of Abbreviations

SMP: Social Media Platform

# Chapter 1

# Introduction

Exploring new technology, knowledge, and skills is an important step to try to find a new passion or to polish an existing one. But, finding and connecting with new people who share a common interest can be a bit overwhelming at times.

We would be addressing this very issue by designing a centralized platform wherein students and teachers can build new connections, post information and stuff that can help to create an inspiring and encouraging environment to learn, develop and venture for all.

## Problem Definition

For this mini-project, we aim to develop a SMP (Connecture) at an institute level wherein students can connect with and share tech-related ideas, knowledge and help foster a rich tech culture in our college.

## Objectives

1. To develop a rich tech culture in college.
2. To help college students connect and interact in a way that would lead to their skill development.
3. To keep everyone updated about the current technical scenario and to present them with opportunities which would strengthen their vital skills in their college years.

## Scope

This project is will be implemented in an institute level. This way, all college students will have a dedicated and organized and centralized platform wherein they can find other students with similar interest and hence, can venture in the fields of their interest by helping, learning, and guiding each other. This will significantly boost their development curve, both when it comes to technical skills and soft skills alike. The underlying idea behind this project is to increase the quality and quantity of interactions students have about technology in an institute, which in turn is guaranteed to make students more open to opportunities to improve their skills, areas to do and learn from mistakes. The overall effect would be seen in the improving tech culture of the institute which is almost non-existent in 3 tier colleges.

## Existing system/project

## When it comes to SMPs which are committed to provide people opportunities to connect, we really have many well-established sites which commit to provide powerful tools for connections. SMPs like Facebook really aims towards meeting new people and connecting with them to make a broader community. LinkedIn is focused on making meaningful connections with people who could help them in professional needs. But both these systems are implemented on a global level and their reach is huge. Bringing a well-planned mix of some of the features of these SMPs and changing the reach level makes this project different. We are leveraging the same – the concept of SMP to enhance connections, but on an institute level and in a way that benefits all.

# Chapter 2

# Technology Stack

1. FRONT END

1)HTML

HTML is responsible for the structuring and placement of the content. It covers the way content is organized and where it is positioned on the page in whatever case. It is the backbone.

2)CSS

CSS is responsible for the representation of the content. It includes colors, fonts, background stuff, peculiarities of a layout, etc.

3)REACT

React.js is the declarative JavaScript framework for creating dynamic client-side applications in HTML. Through React we can build up complex interfaces through simple Components, connect them to data our backend server, and render them as HTML. React’s strong suit is handling stateful, data-driven interfaces with minimal code and minimal pain, and it has all the bells and whistles expected from a modern web framework: great support for forms, error handling, events, lists, etc.

1. BACK END
2. Node.js and Express.js

Express.js server-side framework, running inside a Node.js server. Express.js bills itself as a “fast, unopinionated, minimalist web framework for Node.js,” and that is indeed exactly what it is. Express.js has powerful models for URL routing (matching an incoming URL with a server function), and handling HTTP requests and responses. By making XML HTTP Requests (XHRs) or GETs or POSTs from React.js front-end, you can connect to Express.js functions that power the application. Those functions in turn use MongoDB’s Node.js drivers, either via call backs for using Promises, to access and update data in your MongoDB database.

1. MongoDB

MongoDB is a document database, which means it stores data in JSON-like documents. We believe this is the most natural way to think about data, and is much more expressive and powerful than the traditional row/column model. The Application stores any data (user profiles, content, comments, uploads, events, etc.), JSON documents created React.js front end can be sent to the Express.js server, where they can be processed and (assuming they’re valid) stored directly in MongoDB for later retrieval.

# 

# Figure 2.1: Technology Stack

# Chapter 3

# Benefits and Applications

**3.1 Benefits for society**

This initiative can help students to be able to form strong communities which in turn can help students of any institute to progress. It provides a fair opportunity and a seamless service for all students to excel in their career and to find people with similar interests and goals. Being able to find such a supportive company keeps a healthy competition alive between students and a collaborative and supportive environment is created. By doing this, college students can not only make new friends, but also meet new mentors, guides, or juniors with similar mindset and help them carve their way. This can build a tech intensive ecosystem.

**3.2 Benefits for environment**

This project will have a dark theme UI which would use less power. Also due to its simple nature, it’s working is also not as complicated as other alternatives in the market, which again uses less memory and power.

# Project Design

# Annexure A

# 5.1 Gantt Chart

Detailed information, lengthy derivations, raw experimental observations etc. are to be presented in the separate appendices, which shall be numbered in Roman Capitals (e.g. Appendix I). Since reference can be drawn to published/unpublished literature in the ap- pendices these should precede the Literature Cited section.

## Appendix-A:

.

**Acknowledgement**

We have great pleasure in presenting the mini project report on **Simple Social platform to connect with college peers(Connecture).** We take this opportunity to express our sincere thanks towards our guide **Dr. Pravin Adivarekar** Department of Computer Engineering, APSIT thane for providing the technical guidelines and suggestions regarding line of work. We would like to express our gratitude towards his constant encouragement, support and guidance through the development of project.

We thank **Prof. Sachin Malave** Head of Department, Computer Engineering, APSIT for his encouragement during progress meeting and providing guidelines to write this report.

We also thank the entire staff of APSIT for their invaluable help rendered during the course of this work. We wish to express our deep gratitude towards all our colleagues of APSIT for their encouragement.

#### Student Name1: Riddhi Narkar

**Student ID1: 19102003**

**Student Name2: Aditya Yadav**

**Student ID2: 19102006**

**Student Name3: Devansh Katheria**

**Student ID3: 19102027**

**Student Name4: Shauryan Singh**

**Student ID4: 19102004**

12