

Build From Home 2.0

SWC IITG



01

Overview & Purpose

Following the first phase of Build from home 2.0, which involved various workshops and training. Below are the projects which are being released as a part of the build from home 2.0.



TECH STACKS

03

SWC IITG

NODEJS

SWC Courses, HAB 2.0, Welfare Board, Sports Board, Discord Bot

DJANGO + DRF

Cultural Board, Campus OLX, Printing Portal, Event Scheduler, Gymkhana Website, SAIL

REACTJS

SWC Courses, Campus OLX, Event Scheduler, Gymkhana Website

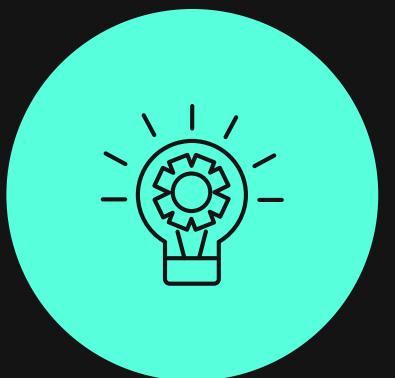
FLUTTER

Event Scheduler

JAVA (ANDROID)

Campus OLX

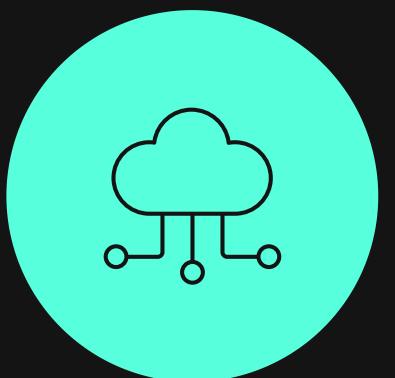
Skills you will learn



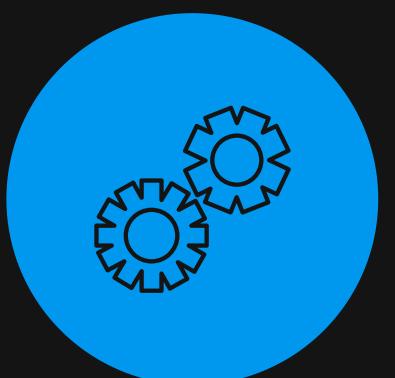
REST Framework



FrontEnd Development



Backend Development



App Development

Project List

A COMPREHENSIVE LIST OF ALL THE
PROJECTS

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SWC Courses



SWC Courses is a course videos streaming platform where professors and their TA's will add courses with subtopics and videos. Students can enroll in their courses with an enrollment key unique to every course. The website will also have a discussion forum, lecture release scheduling (videos can be uploaded before and released later), and video stats feature (like no views, downloads, etc.). The videos will also be streamable in many resolutions. We will also create an admin panel page, separate from the user website, where professors and TA's will be managing(adding, editing, deleting) their courses. The website will be dynamic, with most of the data being added from the admin page. We will be using the MERN stack in this project. It's one of the most important projects in SWC, and you guys will be able to learn a lot.

Tech stack: NodeJS+ReactJS

Number of Team members: 4(Backend)+4(FrontEnd)



HAB 2.0

Addition of new features in the HAB website, mainly microsites of the hostels containing all the hostel details, including notices, announcements, etc.
[\(https://www.iitg.ac.in/hab/\)](https://www.iitg.ac.in/hab/).

Tech Stack:

Frontend: HTML, CSS, JS.

Backend: MongoDB, Nodejs, Express

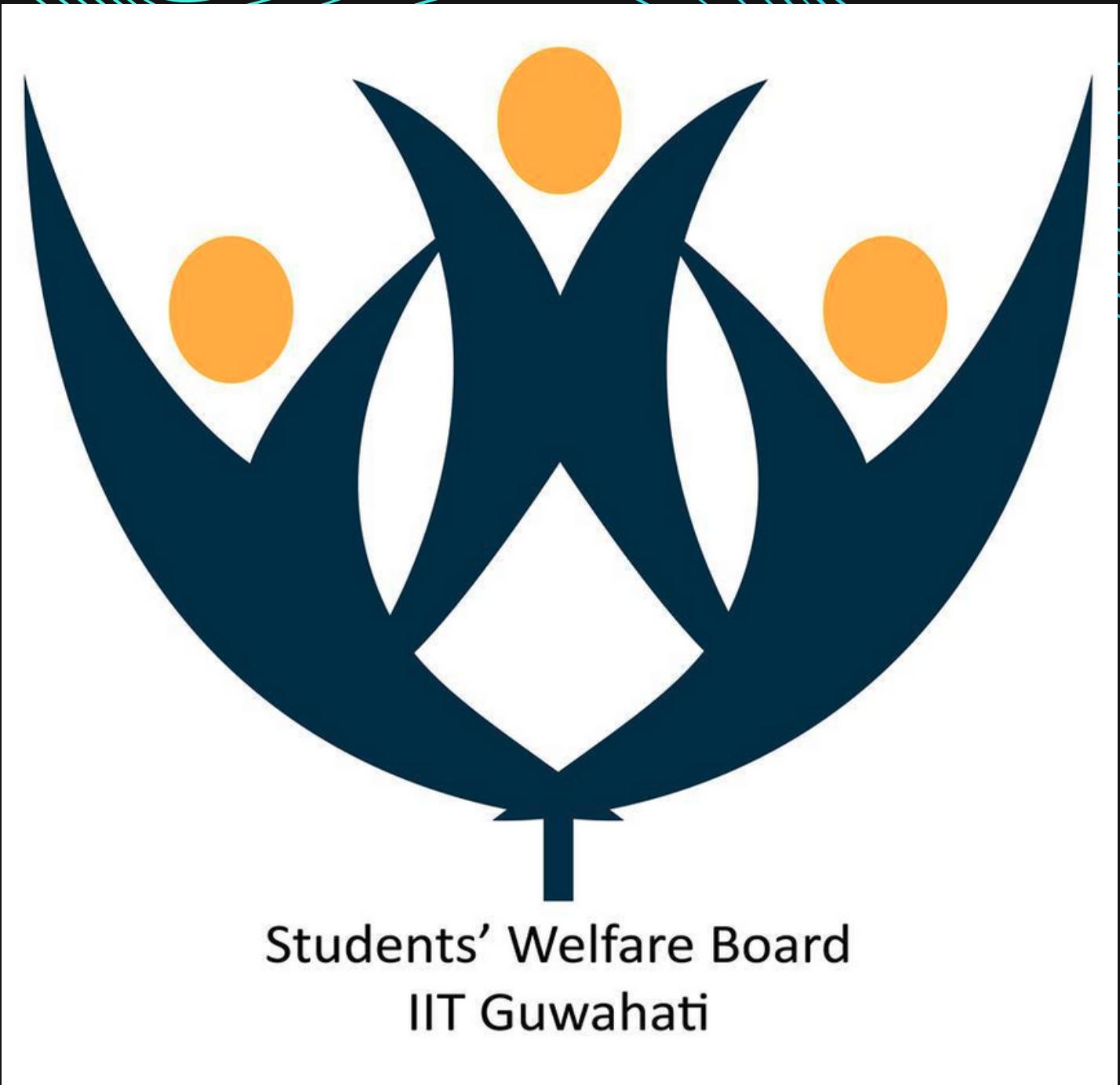
Number of team Members: 5

Welfare Board

In this project, we will create the student's welfare board's website, developing both front-end and back-end, which will have CMS. and microsites for clubs that come under the welfare board.

Tech Stack: NodeJS, MongoDB, HTML, CSS

Number of team Members: 8



Sports Board

In this project, we will create the sports board website and microsites for clubs under the sports board. It will have an admin panel that will control all the content on the website.

Tech Stack: NodeJS, MongoDB, HTML, CSS
Number of team Members: 6



Cultural Board

In this project, we will Build the Cultural Board website from scratch using Django backend, and it will also have microsites for the clubs under the cultural Board. It will have an admin panel to control the content on the website.

Tech Stack: Django ,Html ,Css,Bootstrap
Number of Team Members: 6



Cultural Board, IIT Guwahati

CAMPUS OLX



Campus OLX is a webD cum appD project through which, as the name suggests, the campus junta can buy, sell or rent various products such as utility objects and OTT subscriptions, etc. The backend will be created using Django Rest Framework with frontend in ReactJS and Android.

Tech Stack:

Frontend: ReactJS, Java(Android)

Backend: DRF

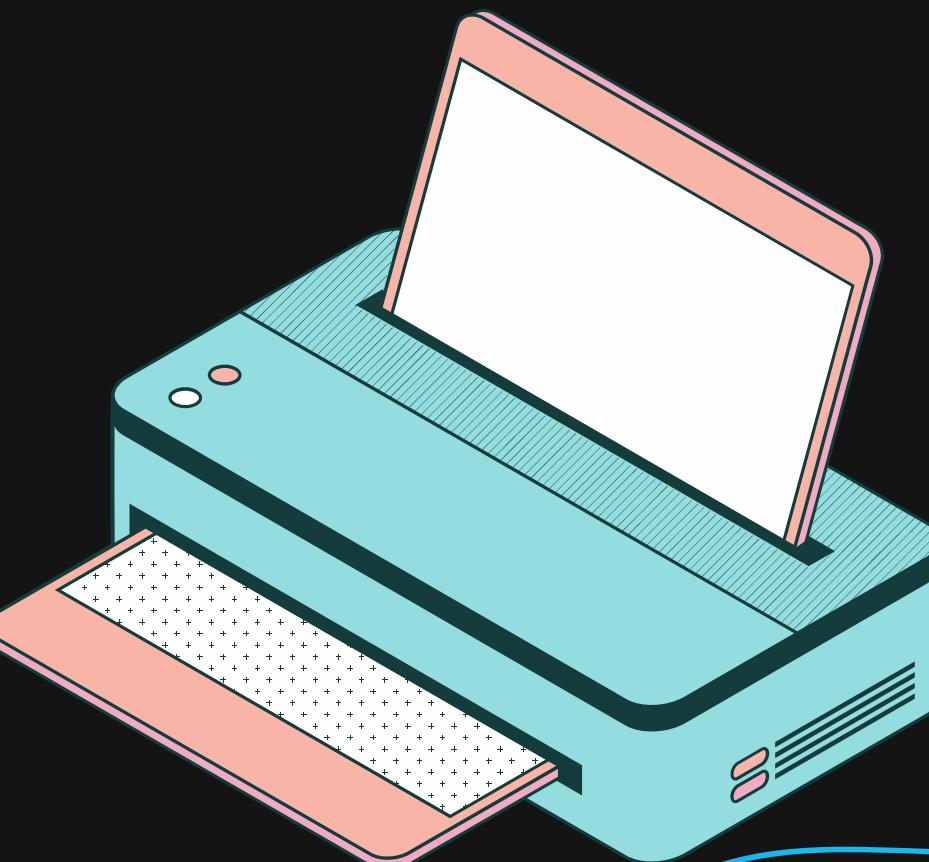
Number of team Members: 6 for backend + 4 for react + 7 for Android

PRINTING PORTAL

It is a web development project. The aim is to build a portal where users (students of IITG) can log in and upload their documents needed to be printed as pdf or word files. The portal will merge all the pdfs and then send it to the person (or vendor) who will print with the name and roll no of the user. The person will print and send a message to the user that his/her documents are ready and he can collect them. Features such as no. of copies, black and white or colored print, single side double side will be implemented. The portal will also have the option of online payment via Razorpay etc.

Tech stack: Django ,Html ,Css,Bootstrap

Number of Team members: 6



EVENT SCHEDULER



It is a website cum flutter app that will enable a particular user to schedule events and send reminder emails via outlook. This portal intends to solve the problem of getting reminders via Outlook at SUITABLE TIME(S) to SUITABLE AUDIENCE depending upon the events to be reminded about. Initially, we shall aim to set reminders for the Academic, Club-related, and Organization Related Activities. Later, as a scope of improvement, we may consider thinking upon the feasibility of Seasonal and Other Activities (during the process of Scaling Up). A dashboard on every user's screen will display upcoming events. Users can set custom event reminders, or for organizational events, an organization head or in-charge will set up weekly, fortnight, or monthly reminders, as per the event need and specification.

Tech Stack:

FrontEnd: React + Flutter

BackEnd: DRF

Number of team Members: 5 for React + 5 for Backend + 5 for flutter

DISCORD BOT

A discord bot for maintaining and moderating the SWC discord server.

Tech Stack: Node.js (Discord.js)
Number of Team Members: 3



GYMKHANA WEBSITE

Complete rebuild and redesign of the current gymkhana website with an admin panel to control the content on the website.

Tech Stack: Django/HTML or DRF/React, CSS

Number of Team Members: 5



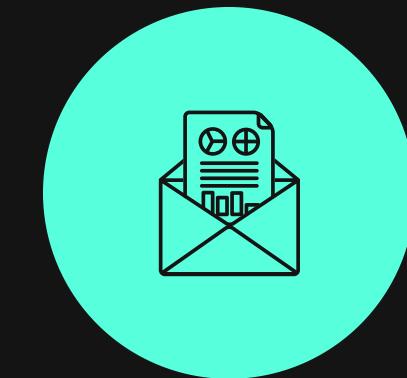
SAIL Website

We will be rebuilding and redesigning the SAIL Website with an admin panel to control the content on the website.

Tech stack: Django ,Html ,Css
Number of Team members: 5



Let's work together



EMAIL

swc@iitg.ac.in



DISCORD

<https://discord.gg/PX8uQkjE>



WEBSITE

docs.swciitg.in



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Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech.	IIT, Guwahati	7.89 (Current)	2015 - Present
Senior Secondary	CBSE Board	88.6%	2015
Secondary	CBSE Board	10.0	2013

Experience

- **Goldman Sachs**

Summer Analyst - Market Risk Technology

Bangalore, India

May 2018 - July 2018

- Developed a process from scratch in Slang (GS Proprietary Language), to process, hydrate and reconcile large volume of data in End Data Stores, optimizing architectural and functional bottlenecks.

Projects

- **Critical Empirical Analysis of Ross Recovery Theorem**

Bachelor's Thesis Project, Prof. N. Selvaraju

Ongoing

- To perform a critical empirical analysis of the predictive capabilities of Ross Recovery Theorem in contrast with the traditional Black Scholes Merton approach on the Indian Equity Markets.

- **Enigma**

Personal Coding Assistant

Slack Bot

youtu.be/dMZ3HqF-fYY

- Designed and Developed a Slack Bot which provides constructive suggestions from StackExchange, problem suggestions from popular archives, notifications for upcoming contests, code compilation support for over 60 languages and programming memes, which earned distinction in several recognized Hackathons.

- **Video Search Engine**

github.com/HitenSethiya/VideoSearchEngine

- Developed a Flask based Web Application to perform indexed search and provide relevant video suggestions on Youtube video database based on content similarity and user logs. Used MongoDB to store video indices, Neo4j to build relations & MySQL to store logs.

Technical Skills

- **Programming Languages:** C++, Python, C, R*, MATLAB*

- **Web Technologies:** Django, Flask, HTML, CSS Javascript*

- **Database management:** MySQL, MongoDB, Cassandra, Neo4j, SAP IQ

- **Miscellaneous:** Android programming*, Git, CVS

- **Operating Systems:** Windows, Linux*, MacOS*

* Elementary Proficiency

Key courses taken

- Stochastic Calculus
- Statistical Analysis of Financial Data
- Databases
- Operating Systems
- Data Structures and Algorithms
- Computer Networks

- Financial Engineering
- Portfolio Theory and Performance Analysis
- Probability Theory and Random Processes
- Monte Carlo Simulation
- Discrete Mathematics
- Matrix Computations

Positions of Responsibility

- **President, MATRIX:**

- Led the revival of the dormant student body to establish culture and a sense of belongingness in our department.
- Led a team of 15 people, raised and managed funds over 2 lacs to organize various hackathons/competitions, alumni talks, guest lectures & learning series in Annual Technical Festival of Department of Mathematics, IITG - Dimension '18

- **Core Team Member, Udgam: Annual E-Summit IITG:**

- Organized "Pitch It" - B-Plan Pitch Competition in Udgam'17. Developed a Web Application to cater 300 simultaneous active users (audience) for a seamless Crowd Funding experience integral to the event.

Achievements

- **Joint Entrance Examination - Adv 2015: AIR 1221**

- **2017 Humblefool Charity Hackathon, Topcoder:** Finished 5th in Topcoder hosted Hackathon aimed at building applications making a difference in programming education.

- **Kishore Vaigyanik Protsahan Yojana (KVPY) Fellow:** Awarded National Research Fellowship.

- **OCSC - International Junior Science Olympiad (IJSO) 2013:** Selected among 45 students all over India to attend the IJSO's 3rd Stage - Orientation Cum Selection Camp in Mumbai hosted by HBCSE.

- **National Talent Search (NTS) Scholar 2010-11:** Awarded NTS Scholarship for clearing NTSExams.

- **INCHO - Indian National Chemistry Olympiad 2015:** Was selected among the top 400 students all over India for the International Chemistry Olympiad's 2nd Stage conducted by HBCSE

ABHISHEK AGRAHARI

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