1. [Sanjana Karim](mailto:bsse1322@iit.du.ac.bd) and [Tasnim Mahfuz Nafis](mailto:bsse1327@iit.du.ac.bd) ( 1322, 1327)

**Github link:** [Garment Worker Efficiency Monitoring System](https://github.com/TasnimMahfuz/software-project-lab-2)

**Supervisor:** **[Dr. Mohammad Shoyaib](http://www.iit.du.ac.bd/about_iit/individual_teacher/48)**

**Description:** The goal was to analyze real-time CCTV feeds of garment workers and figure out their efficiency, idle time and number of garments processed per unit time.

Most of our time and effort went towards figuring out the approach. In the end, what we did was very simple.

We detected and tracked hands with the mediapipe framework. We drew a bounding box parallel to the shoulder and belly region with opencv. That is where workers keep processed garments. If either of the hands move to that region, we consider that as one garment processed.

We used sqlite3 database and built the user interface with python “tkinter” library.

We wanted to make our system multi-threaded, so that we can analyze many camera feeds concurrently. We also wanted to create some horizontal spaces in the feed to analyze multiple workers’ data from a single feed. We could not finish these two tasks because of lack of time. Our direct CCTV feed analysis lagged as the video resolution was very high. The project can be extended by working in these areas.

**2. Mahir Faisal & Mostafizur Rahaman Rakib**

**Github link:** [**https://github.com/MdMostafizurRahaman/SPL-II.git**](https://github.com/MdMostafizurRahaman/SPL-II.git)

**Supervisor:** **Dr. Zerina Begum**

**Description:** This project aims to reduce the complexity of the offline activity of the IIT internship procedure every year. Using our website the IPOC can easily allocate any student to any company according to student & company preference.

**3. Faria Akter and Tanjuma Tabassum Jerin**

**Github Link:**[**TANJUMAJERIN/mit-portal at final-project (github.com)**](https://github.com/TANJUMAJERIN/mit-portal/tree/final-project)

**Supervisor:** Dr. Naushin Nower

**Description:**The MIT Portal is a web-based application designed to simplify the academic processes for the Executive Master in Information Technology (MIT) program. It addresses the challenges of managing student enrollment, course offerings and selection, payment processing, and result management and History tracking. The system provides user-friendly interfaces for students, teachers, and staff, making it easy to handle various aspects of the MIT program efficiently.

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**4.** [**Md Nasir Uddin**](mailto:bsse1310@iit.du.ac.bd) **&** [**Soumitra Paul**](mailto:bsse1317@iit.du.ac.bd)**.(1310, 1317)**

**Github link:** <https://github.com/Nasir-1310/DroidInspect>

**Supervisor:** [**Dr. Mohammad Shoyaib**](http://www.iit.du.ac.bd/about_iit/individual_teacher/48)

**Description:**

DroidInspect is a lightweight test input generator for Android. It can send random or scripted input events to an Android app, achieve higher test coverage more quickly, and generate a UI transition graph (UTG) after testing. For more details visit the github. Thanks.

**5. Rony Majumder & Adity Khisa**

**Github link:** [link](https://github.com/adity1234567/SPL2/tree/main/lib%2012(edit%20profile%20done))

**Project Name: Bangla Sign Language Learning Tool**

**Type: Mobile app**

**Description:**

The BSL Recognition and Learning Tools come up with many incredible and exciting features for the student (D&M) and the learner of Bangla Sign Language Recognition. When a physically challenged child (D&M) is born in a family, there is little possibility that any guardian members have known the Bangla Sign language to learn the D&M child. So the Guardian can easily learn basic pre-school Sign language and then teach the physically challenged child.

The "Bangla Sign Language Recognition and learning tool" mobile app is designed for D&M people and interpreters, featuring a user-friendly interface with key systems including Registration and Authentication, a Dashboard, Real-Time Processing, and Lesson Management. Users can create accounts, log in, and recover passwords securely. The dashboard offers a profile section, notifications, settings, and a logout option. The app uses a machine learning model to capture and translate Bangla Sign Language gestures in real-time via the device's camera. Lesson Management allows instructors to create and organize lessons with pictures, videos, and text, while students can engage in interactive games and track their learning progress.

**6. Reza Abdullah & Rayhan Sefat**

**Supervised by:** Dr. Ahmedul Kabir

**Repo:** [Link](https://github.com/RayhanSefat/ShotMaster)

**Technology:** Flutter, Flask, MongoDB, ESP32(WiFi Module), MPU6050(Accelerometer, Gyroscope sensor)

**Type:** IoT, Data Analysis, Mobile App

**Description:**

ShotMaster is a mobile application designed to help aspiring cricketers improve their batting techniques. It functions as a virtual assistant that analyzes a player's batting performance. It uses mpu6050(Accelerometer, Gyroscope sensor) for reading the session data of the batsman. Then it will send the data using ESP32 to the server and then data processing and analysis. Final report is shown in the mobile application. You are referred to the SRS documentation, exactly to the QFD section, to know what we actually did. I have also added the project report that has the implementation details. Feel free to contact any one of us for any kind of help or guidance.

**7. Arnab Das Joy & Md. Sabbir Hosen (1308, 1333)**

**Supervised by:** Dr. Ahmedul Kabir

**Repository:** [Bangla NLP Knowledge Graph Management System (BKMS)](https://github.com/arnab-zero/SPL-2-BKMS)

**Technology**: ReactJS, D3.js, Tailwind CSS, Firebase, NodeJS, ExpressJS, Neo4j, MongoDB

**Type:** Web application

**Description:**

The knowledge graph in BKMS has research topic nodes and research paper nodes. Our developed system primarily aims to maintain and arrange existing and yet-to-publish research papers on Bengali NLP under relevant research topic nodes. (Initially, we created the system with approx. 2.5k existing BNLP research paper information.)

This system allows authentication of users and redirects them to dashboards based on their role (User/Admin). Users can submit research paper info. Admin can review the info and approve/reject based on consistency. The approved paper info, as a research paper node, is added to the knowledge graph later.

BKMS also provides the perks of discussion on each research paper and a separate analytics section providing insight on the research culture in BNLP. Users receive contribution points based on their engagement.

**8. Nusrat Jahan Lia - 1306, Imamul Hossain Rafi -1323**

**Supervised by :** Dr. B M Mainul Hossain

**Repo :** [Link](https://github.com/NusRAT-LiA/Mars-Explorer-Game)

**Name : MEG**

**Type :** Game

**Tech stack :** Unity, Python , CSharp , ShaderLabs , 3D Animation , 3D rendering

Description: A gaming application that simulates the challenges and discoveries of Martian exploration, requires solving of scientific puzzles, and getting real time weather data of Mars.

9. **Mosamma Sultana Trina - 1313 & Umme Kulsum Tumpa - 1307**

**Project:** CodeSphere

**Supervised by:** Kishan Kumar Ganguly

**Type:** Web Application

**Github:** <https://github.com/Trina-SE/SPL_02/tree/Trina-SE-patch-1>

**Description:** It's a Competition Programming Platform for IIT students. Check our github to know more about our project.

**10. Shifat Jahan Shifa - 1301 & Swadhin Pal - 1302**

**Project:** eAccessibility

**Supervisor:** Dr. Zerina Begum

**Platform:** web application

**Github repository link:** [eAccessibility](https://github.com/ShifatJahanShifa/SPL-02)

**Description:** this project aims to help developers find out accessibility violations in their applications’ design according to WCAG 2.1 guidelines. For more information, go thru the github repo readme file. Also feel free to ask anything about the project to both of us.

**11. Eftekhar Mahmud Efty - 1309, Ibne Bin Rafid -1330**

**Project:** Dhaka University Swimming Pool Management System

**Supervisor:** Abdus Satter Rifat

**Platform:** Web Application

**Github repository link:** [Link](https://github.com/EFTY1309/SPL-2)

**Technologies:** React,Node,Express,MongoDB,Figma.

**Description:** This project aims to develop a management system for DU Swimming pool where students can register through online.They can also make payment using online banking system.They can buy their preferred courses as well.Also there are many features for admin and staffs.You can check github repo for more details.

**12. Farhan Islam Shuvro (1303) & Abir Ashab Niloy (1315)**

**Project :** Recruitment Management System.

[RecuitEase](https://github.com/Abir-Ashab/spl-2)

**Tech Stack :** MERN

**Supervisor:** Mohammad Shafiul Alam Khan

This is basically a recruitment management website where job seekers and employers can register and log in.

Employers can post jobs. And on the other side the job seekers can apply with their CV according to their preferred jobs. These tasks are performed by basic CRUD operation using MERN stack. There is another feature where employers can sort out CV's according to their needs. For implementing this feature we have parsed the cv and fed those data to gemini api. Using the gemini api the sorting and analysis portion is done. The project still has a lot of scope for modification. We didn’t focus on a good UI. Instead we tried to implement the features within a short period of time.

**13. Eftiar Ahmed Rimon (1355) and Md. Rejaul Karim (1324)**

**Project :** Hall Seat Management System

**Supervisor :** Dr. Sumon Ahmed

**Frontend :** nextjs, bootstrap

**Backend :** nodejs, mongo

**Github link :** https://github.com/RejaulBSSE1324/SPL-2

**14. Tanvir Hasan Abir (1321) && Mehedi Hasan Rizon ( 1326 )**

**Project Name :** IIT Routine and Lab Management System

**Supervisor:** Toukir Ahammed

**GitHub:** [thabir303/SPL-II (github.com)](https://github.com/thabir303/SPL-II)

**Technologies:** React.js, Node.js (Express.js), and MongoDB

**Project Description :**

With the increase in student capacity from 30 to 50 at the University of Dhaka's Institute of Information Technology (IIT), effective resource management has become critical. Therefore, in our SPL-2 project, we have developed a web application to find a solution on how to use IIT's limited resources smartly and efficiently. Our project includes the creation and updating of IIT's routine through this web application. Additionally, a teacher can reschedule their classes for a particular time using the application. We have ensured close collaboration among students, teachers, and administrative personnel in this project.

**15. Fareya Azam ,Amit Roy**

**Project Name :**  **Tcommerce** (Telegram bot integrated E-commerce platform)

**Github Link:** <https://github.com/fareya22/T_commerce/tree/master>

**Supervisor:** Dr. Kazi Muheymin-Us-Sakib

**Technologies**: React.js, Node.js, and MongoDB

**Description:** This project aims to revolutionize the E-commerce system by integrating it with the popular messaging app **Telegram** . This software enables a seller to add new categories, new products ,delete items and do all the functionalities to manage his store simply using the **Telegram bot**.Also using the customerBot customers can view,search products & categories ,add multiple or single item to cart,view the total amount of the products in the cart,can delete item from cart,can order products and pay for the ordered products using AamarPay.Here all the functionalities can be done using **telegram bot** .Thus this software allow both the seller and customer to do their perspective jobs using Telegram bot.

**16. Busrat Jahan Sabiha , Nahida Sultana**

**Project Name:** Safety Miles

**Github Link:**<https://github.com/Nahida1318/SPL_SafetyMiles_Project>

**Supervisor:** Dr. Emon kumar Dey

**Technologies :** React.js,Node.js ,PostgreSQL

**Description:** This project, titled "Safety Miles," aims to enhance traveler safety by providing a user-friendly, map-based platform. Utilizing Leaflet, Graphhopper, and OpenStreetMap, the project offers real-time route visualization and distance calculation between user-specified locations. The platform caters to user registration and login, allowing for personalized accounts. Within the interface, users can access features like profile viewing, a map-based homepage,favorite route viewing, feedback options, and incident ratings.The core safety aspect lies in the ability to view pre-populated incident data (theft, robbery,snatching) stored on the map database. Additionally, the platform empowers authenticated users to report safety incidents directly through the map interface. Reported incidents are seamlessly integrated into the map, providing valuable real-time information to all users accessing the system.This project contributes to a safer travel experience by promoting informed route selection and fostering a collaborative environment for incident reporting.