Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation:

PS Code: SIH1362

Problem Statement Title: Student dropout analysis for school education

Team Name: BTECH BROTHERS

Team Leader Name: JYOTIRMOY SAHA

Institute Code (AISHE): C-6197

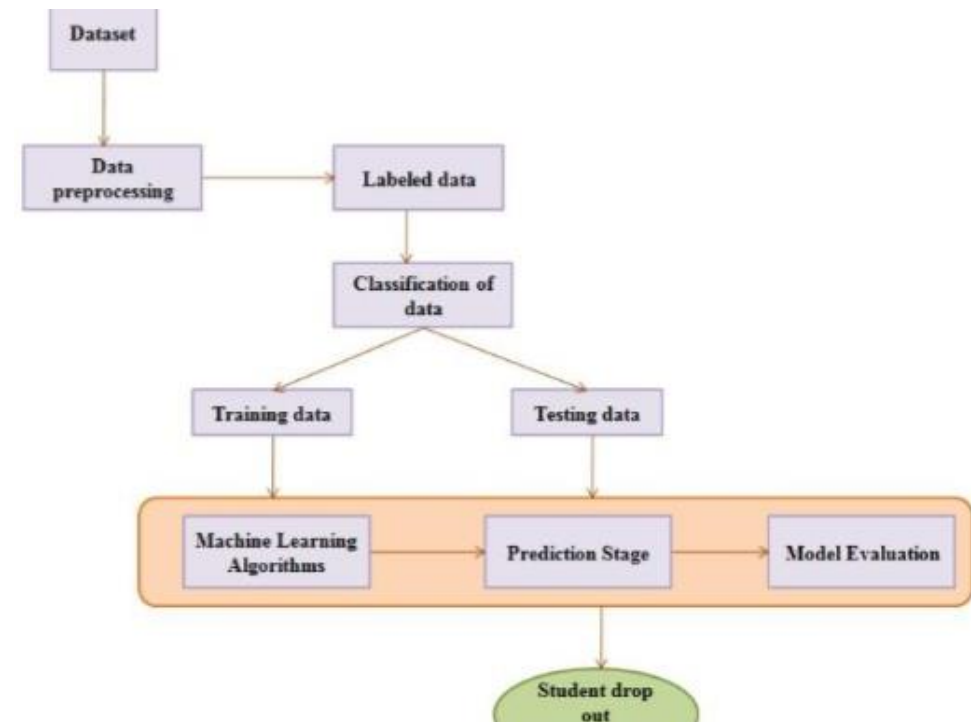**Institute Name:** Camellia School of Engineering and Technology

Theme Name: Smart Education

Idea/Approach Details

Describe your idea/Solution/Prototype here:

➢

Our project for the Smart India Hackathon 2023 aims to address the critical issue of student dropouts in school education. The Right to Education is a fundamental concern for the government, but dropout rates remain alarmingly high due to various socio-economic factors, including poverty. To combat this issue, we have developed an innovative web application that empowers schools and institutes to actively contribute to dropout analysis and intervention strategies.Our solution involves the creation of a user-friendly web application that allows school and institute authorities to input data regarding students who have dropped out of their institutions. This data can be categorized into various criteria, including school-wise, area-wise, gender-wise, caste-wise, and age/standard-wise. Each criterion provides valuable insights into the dropout problem, enabling a multifaceted analysis approach.

Describe your Technology stack here:

➢ Front-end technology: HTML, CSS, Javascript, jQuery, other libraries, etc.Back-end: PHP, MYSQL, AJAX, etc

Idea/Approach Details

Describe your Use Cases here

Policy Development: Education authorities can shape policies to reduce dropout rates based on analysis results, directing resources where needed.

School Improvement: Individual schools can identify areas for improvement and implement targeted interventions to retain more students.

Resource Allocation: School districts can allocate resources effectively, ensuring schools with higher dropout rates receive adequate support.

Early Warning: Early warning systems can alert educators to at-risk students, enabling timely interventions.

Teacher Training: Professional development can be tailored to help teachers engage and support students at risk of dropping out.

Parental Engagement: Schools can encourage parental involvement tailored to address dropout risk factors.

Describe your Dependencies / Show stopper here

Data Availability: Availability of accurate and comprehensive data on student demographics, academic performance, and dropout reasons is critical. Incomplete or outdated data can hinder the analysis.

Data Privacy: Ensuring compliance with data privacy laws and protecting sensitive student information is essential. Failure to do so can result in legal and ethical issues.

Resource Allocation: Adequate funding and resources are necessary for data collection, analysis tools, and intervention implementation. Insufficient resources can limit the scope and effectiveness of the analysis.

Stakeholder Collaboration: Collaboration between schools, districts, educational authorities, and community organizations is vital to implementing interventions effectively.

Policy Support: Support from education policies and authorities is needed to implement systemic changes to reduce dropout rates effectively.

Technological Infrastructure: Reliable IT infrastructure and software are necessary for data collection, storage, and analysis. Technical failures can disrupt the analysis process.

Team Member Details

Team Leader Name: JYOTIRMOY SAHA
Branch (Btech):   Stream (CSE):   Year (III):

Team Member 1 Name: ARYA BHATTACHARYA

Branch (Btech):   Stream (CSE):   Year (III):

Team Member 2 Name: IMRAN NAJIR MALLIK

Branch (Btech):   Stream (CSE):   Year (III):

Team Member 3 Name: RONI PAUL

Branch (Btech):   Stream (CSE):   Year (III):

Team Member 4 Name: ANAY SANTRA

Branch (Btech):   Stream (CSE):   Year (III):

Team Member 5 Name: SANCHARI DEBNATH

Branch (Btech):   Stream (CSE):   Year (III):

Team Mentor 1 Name: SANTANU DEBNATH

Category : Academic = 19

             Industry = 6   Expertise (AI/ML/Blockchain/Cybersecurity, etc.):   Domain Experience (25):