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Special Interest Group on
Humanitarian Technology
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IEEE RVCE Computer Society and IEEE RVCE SIGHT presents

Hack4Soc

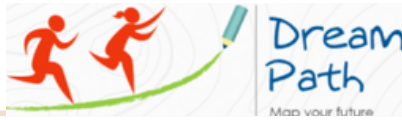
A 24 hour long inter-college hackathon to solve humanitarian problems



Problem Statements

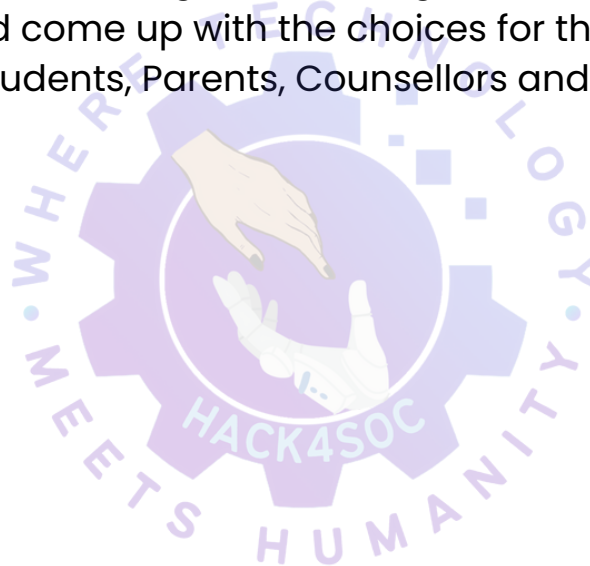
Partnering NGO

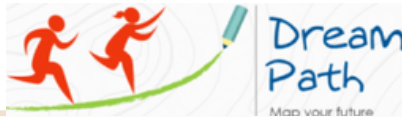




Background of the organization:

- Career guidance given to students after 10th Std.
- Make them aware of different options available to pursue career
- Conduct activities to explore different paths available, so that they can realize the right career option for themselves.
- Usage of Intellisense to determine the career path of students through thought process.
- Talk to parents and arrange counselling for students, through discussions, and come up with the choices for them
- Stakeholders: Students, Parents, Counsellors and Administrators





1 Counselling Workflow Automation

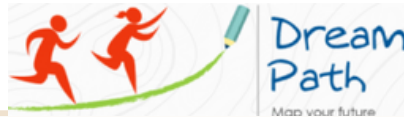
1.1 Problem

The process involved in conduction and evaluation is currently manual. Request for counseling is usually raised through mail or phone call. The fee structure is decided and the counseling team is identified based on the type of counseling asked for.

- Students are then given assessments that are manual. They have to scan and send the answer key. Evaluation becomes tedious since it is manual.
- Reports from the assessment and discussions are only documented on pen and paper. Information gets lost and one counselor cannot learn from the experience and sessions of other counselors

1.2 Requirements

- Automation of entire workflow involved in conduction and evaluation of Career Guidance process.
- Provide Digitized alternatives for conducting and correcting assessments.
- Provide career recommendations based on scores using Multiple Intelligence.
- To provide a Digitized method of documenting counseling sessions so that other Counsellors dealing with students with similar career paths can learn from other's experiences.
- Calendar scheduling of discussions with parents and students



2 Impact Analysis

2.1 Problem

In career counseling workshops, feedback plays a very important role. Feedbacks are a tool to improve the entire system of counseling and incorporate best practices based on real user experience.

Feedback for the Career Path guidance given is taken immediately after the Workshop sessions are conducted and also after the student has taken up a certain career path.

- The feedback that is taken immediately is done manually and does not follow a standardized process and is usually lost.
- In the timespan of over the years usually, the feedback is taken after their 10th, 12th, college graduation, etc.
- The feedback that must be taken at later stages usually takes a back foot when new batches come in. Problems arise with tracing the candidates and obtaining their replies actively.

2.2 Requirements

- Enable a standardized digitized way to take feedback immediately after the workshop.
- Provide Automated Scheduled alternatives to collect feedback from older batches in a timely manner.
- The feedback captured should be stored in a database and also possibly provide an analysis of the impact the services hold based on answers given by student clients. Give recommendations to the organization on improvement/corrections and best practices existing which are to be continued based on suggestions provided.

Background of the organization:

- Humanity is a non-government organization that works towards educating, supporting, and upskilling children.
- It is their vision to ensure holistic development and uplift the lives of children living in Child Care Institutions.
- They are committed to support such children through their efficient voluntary model and channelizing various collaborations to create a sustainable community.
- Humanity has been established for 2+ years now, having impacted over 250 children across 7+ child care institutions, with the support of 100+ incredible volunteers.



3

The Reading Assistance and Recommendation System

3.1

Problem

- Humanity has various ongoing projects and programs, one among which is the Library project. This project envisages setting up a mini library in the premises of the shelter homes to inculcate the habit of reading among the children. It forms the basis for the given problem statement.
- Currently, they manually select and recommend books to students based on their reading level. They give students a few days to read through the book and assess their understanding based on the students' review of the book.
- Each book is grouped into a particular reading level. Students who complete reading 70% at a particular level are allowed to move to a higher level. This is done manually.
- The next book to be given to students is manually chosen by the volunteer of the organization.

3.2

Requirements

- Building up a digital setup dashboard on a digital platform for library assistance
- Create standard Levels based on how much a child reads based on Age group.
- Track what books a child is reading and on what level he is on currently.
- Recommend strategies to improve and motivate his reading skills to children who are not able to up the levels.
- Enable Students to give a report based on completion of a book.
- Evaluate the Student level of understanding based on his report submission.
- Create category of books based on Student reads.
- Recommend similar books from a library of books for further reading.
- Set a next level target for completion of book (based on his previous level).
- Based on his achievement for reading the recommended book and achieving the target, provide him Gift coupons for purchase of books/small stationary etc.