TECHFEST 2023-24

HackAI

[Overview of fetch.ai]

ROUND 1 PROBLEM STATEMENT :

All challenges must utilize Fetch.ai's uAgents library to perform the core functionalities.
The participants can choose to work on and submit **ANY ONE** of the following problem statements:

1. Temperature Alert Agent

Your challenge is to create the Temperature Alert Agent using uAgent library, a tool that:

a) Connects to a free weather API to fetch real-time temperatures for the specified location.
b) Lets users set their preferred temperature range (e.g., a minimum and maximum temperature) and location.
c) Sends an alert/notification to the user when the current temperature in their chosen location goes below the minimum or above the maximum threshold they've set.

2. Currency Exchange Monitor & Alert Agent

Your challenge is to create the Currency Exchange Monitor and Alert Agent using uAgent library, a tool that:

a) Allows users to select their base currency and one or more foreign currencies they wish to monitor.
b) Connects to a currency exchange API to fetch real-time exchange rates.
c) Lets users set thresholds for alerts (e.g., notify me if 1 USD becomes more than 82.60 INR or less than 82.55 EUR).
d) Sends an alert/notification to the user when the exchange rate crosses the thresholds they've set.

RESOURCES:

Github Repository
YouTube Tutorials
uAgents Documentation
uAgents Examples

SUBMISSION GUIDELINES

To ensure a smooth and standardized submission process for all hackers, please adhere to the following guidelines.

Public Repository:

- Ensure that your project is stored in a public GitHub repository. This will make it accessible for the judging panel to review your code.
- The master or main branch should be the most up-to-date version of your project.
- Please refrain from pushing any code after the deadline as it may lead to disqualification.

Directory Structure:

Organise your project files using the following directory structure:

```
Python
├── poetry.lock
├── pyproject.toml
├── README.md
└── src
    ├── agents
    │   ├── module_x
    │   │   ├── model_x.py
    │   │   └── __init__.py
    │   └── __init__.py
    ├── __init__.py
    ├── main.py
    ├── messages
    │   ├── message_x.py
    │   ├── __init__.py
    └── utils
        └── utility_x.py
```

Example:

```
Python
├── poetry.lock
├── pyproject.toml
├── README.md
└── src
    ├── agents
    │   ├── flights
    │   │   ├── flights.py
    │   │   └── __init__.py
    │   └── __init__.py
    ├── __init__.py
    ├── main.py
    ├── messages
    │   ├── flight.py
    │   ├── __init__.py
    └── utils
        └── llm.py
```

For reference, you can look here.

Semantic Commits

Use semantic commit messages to make it easier to understand the changes you've made.

Code Style:

Follow the coding style guidelines provided by the programming language you're using. Make sure to include comments that clarify complex parts of your code. Coding style is an important factor in making your code accessible and readable.

- Use a consistent indentation style. For example, if you're using 4 spaces for Python code, stick with it throughout.

- Include meaningful variable and function names.
  Example: calculate_area() is more understandable than func1()

README file

Include a README.md file with the following:

- Project name
- Description of the project
- Instructions to run the project
- Special considerations, if any

Plagiarism Policy

Any code copied from external sources must be properly attributed in comments. Plagiarized projects will be disqualified.

Judging Criteria

Your project will be judged on the following:

- Functionality: Is your project functional end-to-end?
- Creativity: Does your project introduce a new idea or an innovative solution?
- Code Quality: Is your code clean, organized, and well-commented?
- Relevance: Does your project align with the hackathon theme?

API Keys and Environment Variables

If your project involves the use of API keys or other sensitive data:

- Do not push sensitive keys or passwords to the public repository.
- Instead, include a sample .env file with placeholders for these values and detailed instructions on where to get the actual values and how to set them up.

SUBMISSION DETAILS

- All the files must be stored in a single folder & this folder must be sent via email to hackai@techfest.org
- Subject of the mail: "HackAI_TeamID"
- Filename of the abstract PDF: "HackAI_TeamID"
- Mention your team details clearly in the mail.

ROUND 2: FINAL ROUND

The Problem Statement of the final round will be shared with the winners of Round 1.
The selected teams will qualify for a hackathon at IIT Bombay during Techfest 2023-24.

COMPETITION TIMELINE

Last Date of Registration	6th October
Round 1 Submission Deadline	7th October
First Round Results Announcement	10th October
Final Round at IIT Bombay	27th December

TEAM SPECIFICATIONS

- A team may consist of a maximum of 4 members.
- Individual Participation is allowed. However, the participant must mandatorily get a Team ID. This Team ID will be used for all further communication
- Students from different educational institutes can form a team.

ELIGIBILITY

All students with a valid identity card of their respective educational institutes are eligible to participate.

PRIZE

The prize money will be awarded to top 3 winners via NEFT and will be processed within 30 working days after receiving the prize money from sponsors. Top 10 participants will get a certificate of excellence, and the top 60% participants will get a certificate of participation. Winners have to mail the following information (immediately after the announcement of results) to akshat@techfest.org

Format of Mail

Subject: Competition, Team Id, Position (example- “HackAI, HAI-211003, 1st Position”)

Body of mail

The body of the mail should contain the relevant bank account details of the team leader. The exact details required will be conveyed to the winners as soon as the res

Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation: Ministry of Commerce and Industries

PS Code:SIH1984

Problem Statement Title : Developing an interactive gaming software / mobile application on Intellectual Property Awareness for school students

Team Name : Code Magicians
Team Leader Name : Aditya Upadhyay

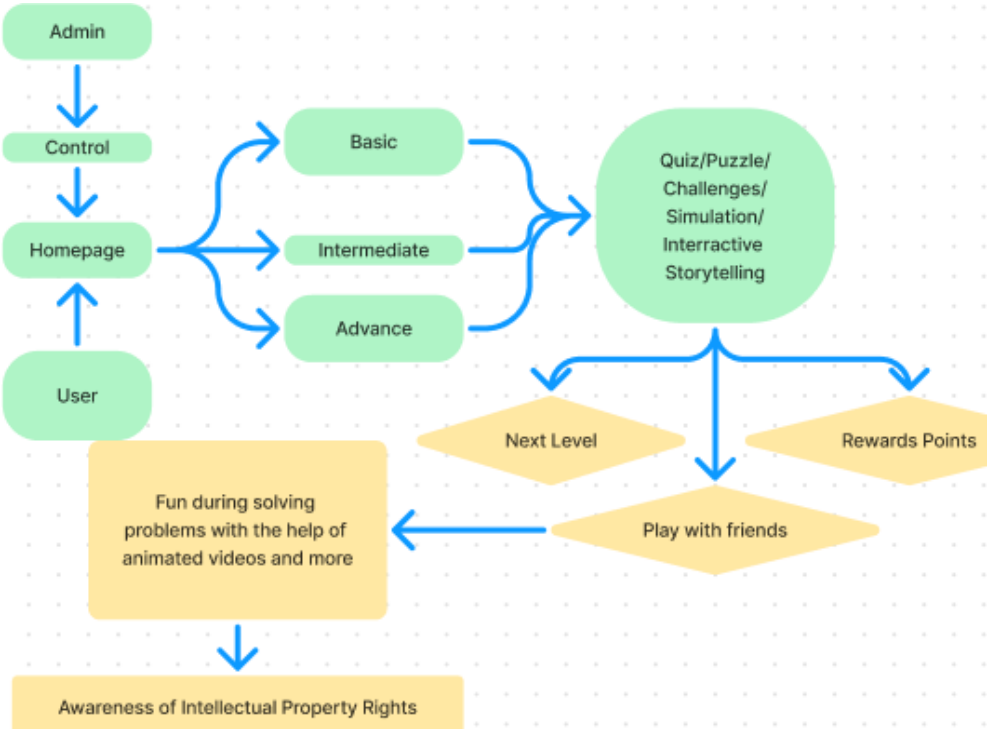
Institute Code (AISHE):
Institute Name : Goel Institute Of Technology and Management

Theme Name: Smart Education

Idea/Approach Details

Idea/Solution/Prototype:

- Developing an interactive gaming software / mobile application on **Intellectual Property Awareness** for school students.
- IPR is a legal right which helps to protect some individual's creation (such as copyright, patent, trademark , creation, design)
- We will be making a game which teach/aware students about Intellectual Property Rights through fun and game.
- In this game , player will be given problems related to IPs and answers will be asked in gamified way(e.g., quizzes, puzzles, simulations, interactive storytelling, and challenges , etc)
- In the game there will be integration(learning behind paying games),challenges(it will be match to the skill of the student to keep the them motivated) and feedback.



Technology stacks

- **Front-end**
  - ✓ HTML5/CSS/JavaScript/React.js
- **Backend**
  - Node.js
- **Database**
  - ✓ MongoDB

Idea/Approach Details

Use Cases:

- ✓ Age Group : 8+ years
- ✓ Game Level : Basic
  Intermediate
  Advanced
- ✓ It should also include elements such as:
  1.Scoreboard
  2.Factual titbits
  3. Map of progress
  4.Quick recap at the end
- ✓ It encourage creative thinking and problem solving.
- ✓ The built-in learning process of games is what makes a game enjoyable

Dependencies:

- ✓ Interactive animated videos and on the basis of the videos ,question will be asked.
- ✓ Fill in the blanks questions related to IPs.
- ✓ There will be option to create custom rooms(two friends will be played with each other.
- ✓ On completion of levels, the student will be able to play the next level and rewards , badges , etc., will be given (to keep them motivated).
- ✓ Peer-to-peer competition via leaderboard.
- ✓ 1.Engagement 3.Strategic Learning
  2.Kid's attention 4.Memory Boost
- ✓ *Spread awareness of IPRs in this way

Team Member Details

Team Leader Name: **Aditya Upadhyay**
Branch –B.Tech Stream :CSE 2nd Year

Team Member 1 Name: **Kajal Kasaudhan**

Branch –B.Tech Stream :CSE 2nd Year

Team Member 2 Name: **Rohit Kumar Yadav**
Branch –B.Tech Stream :CSE 2nd Year

Team Member 3 Name: **Abhinav Nigam**

Branch –B.Tech Stream CSE 2nd Year

Team Member 4 Name: **Shrestha Gupta**

Branch –B.Tech Stream CSE 2nd Year

Team Member 5 Name: **Laxmi Kanaujia**

Branch –B.Tech Stream CSE 2nd Year

Team Mentor 1 Name: **Nitin Kumar Rao**

Category (Academic/Industry): Expertise : Domain Experience (in years): 8+ Years

Team Mentor 2 Name: **Prachi Yadav**

Category (Academic/Industry): Expertise : Domain Experience (in years): 8+Years