**JPMC Code For Good Hackathon**

**Summary Points (Activity flow of the Hackathon):**

1. **Pre-Hackathon Preparation:**
   * Emphasized the importance of proficiency in Git & GitHub.
2. **Team Formation:**
   * Form a team, introduced to mentors and received access to team GitHub repository.
3. **24-hour Hackathon:**
   * Analyzed problem statements among the listed challenges.
   * Strategized, discuss, and divided tasks for front-end and back-end development.
   * Provide tips including proficiency in relevant tech stacks, constant interaction with mentors, and effective time management.
4. **Coding Cut-off & Presentation Preparation:**
   * Integrated and uploaded code to GitHub repository.
   * Prepared a Canva presentation and recorded a demo video for the judging rounds.
5. **Technical Judging Round:**
   * Need to present the demo of the solution highlighting mission, challenges, and the final solution.
6. **Mentor Call:**
   * Questions about project status, contribution, team experience, tech stacks used, extracurricular activities, challenges faced, and previous hackathon experiences can be asked.
7. **Final Judging Round:**
   * Present submission video and answer to the panel questions.
   * Try to answer in the concise manner to the panel consisting of Executive Directors, VPs at JPMC, and the NGO Lead.
8. **Closing Ceremony - The Results:**
   * The winner will be announced.
   * Kindly express gratitude to mentors, jury, and organizers.

Some sample problem statements:

* **CARPE** [1]: They work in the field of solid waste management. You have to design a platform for them where the data of all the waste collected is displayed and analyzed for strategies and decision-making.
* **Slight and Life Foundation** [1]: They work to help kids in rural areas to supply them with basic nutrition. They try to ensure universal access to eggs by implementing innovative, climate-smart approaches to egg production and consumption. How would you contribute to their cause using a tech-based solution?
* **Tata Institute of Social Sciences** [1]: They provide skills to people for better employment through their programs. Since classrooms were closed due to pandemic, design a platform to help learners gain training, assessments, and providing certifications.
* **BHUMI NGO Challenge** [2]: <https://github.com/gandhi25samar/Bhumi>

Objective: Improve engagement on the organization's website to increase volunteer registrations and donations.

Requirements: Develop a solution leveraging data-driven insights to understand visitor behavior and enhance engagement.

* **NAVSANJEEVAN SOCIAL TRUST Challenge** [2]:

Objective: Streamline operations, real-time monitoring, data collection, and achievement showcasing for the organization's various initiatives.

Requirements: Create a platform to ease manual work, track progress, and highlight success stories in skill development, women empowerment, agriculture, and community development.

* **JANAJAGRITI TRUST Challenge** [2]:

Objective: Transition to a tech-based, gamified platform to engage children aged 7–10 in educational sessions on nutrition and yoga.

Requirements: Develop a multiplayer gaming platform with short, educational modules ensuring each game lasts no more than 20–25 minutes.

* **DHULIKONA FOUNDATION Challenge** [2]:

Objective: Establish a communication and tracking system to ensure efficiency and transparency in implementing the Jal Jeevan mission for clean drinking water in rural Assam.

Requirements: Create a user-friendly, fault-tolerant software solution to monitor pump operation, water quality, supply frequency, fee collection, and maintenance, considering diverse technical proficiency of users.

* **Environmental Conservation Challenge:**

Objective: Develop a digital platform or mobile application to promote environmental awareness and encourage sustainable practices among communities.

Requirements: Design features for tracking carbon footprint, providing eco-friendly tips, organizing local clean-up events, and fostering community engagement in conservation efforts.

* **Healthcare Access Challenge:**

Objective: Improve access to healthcare services, especially in underserved or remote areas, through technology.

Requirements: Create a telemedicine platform, health information system, or mobile application facilitating remote consultations, appointment scheduling, health record management, and access to health education resources.

* **Education Equity Challenge:**

Objective: Address disparities in education access and quality by developing innovative solutions to support students from marginalized communities.

Requirements: Design a digital learning platform, tutoring app, or mentorship program to provide personalized learning experiences, educational resources, and academic support to disadvantaged students.

* **Financial Literacy Challenge:**

Objective: Promote financial literacy and empower individuals to make informed financial decisions.

Requirements: Develop an interactive financial education platform, budgeting tool, or investment simulation game to teach concepts such as budget management, saving, investing, and avoiding debt.

* **Food Insecurity Challenge:**

Objective: Combat food insecurity and reduce food waste in local communities.

Requirements: Create a platform connecting food banks, restaurants, and volunteers to redistribute surplus food, implement solutions for food rescue, facilitate donations, and raise awareness about hunger issues.

* **Homelessness Prevention Challenge:**

Objective: Develop initiatives to support individuals experiencing homelessness and prevent homelessness.

Requirements: Design a resource-sharing platform, housing assistance app, or community outreach program providing access to shelters, job training, mental health services, and social support networks.

* **Disaster Response and Relief Challenge:**

Objective: Develop technology solutions to enhance disaster preparedness, response, and recovery efforts.

Requirements: Create a platform for coordinating emergency response activities, managing resources, providing real-time updates to affected communities, and facilitating communication between responders and survivors.

* **Youth Empowerment and Mentorship Challenge:**

Objective: Empower young people with skills, opportunities, and mentorship to achieve their full potential.

Requirements: Design a platform connecting youth with mentors, internship opportunities, career guidance resources, and skill-building workshops to support their personal and professional development.

* **Inclusive Design and Accessibility Challenge:**

Objective: Promote inclusivity and accessibility in digital products and services for individuals with disabilities.

Requirements: Develop solutions to improve the usability and accessibility of websites, mobile apps, or assistive technologies, ensuring compliance with accessibility standards and guidelines.

* **Crisis Intervention and Mental Health Support Challenge:**

Objective: Provide technology-enabled interventions and support services for individuals experiencing mental health crises.

Requirements: Create a crisis hotline platform, mental health screening tool, or peer support network offering immediate assistance, resources for coping and self-care, and referrals to professional services.

* **Community Development and Urban Revitalization Challenge:**

Objective: Revitalize urban neighborhoods and enhance community well-being through technology-driven initiatives.

Requirements: Develop solutions for urban planning, affordable housing, public transportation, green spaces, local business support, and community engagement to foster sustainable development and social cohesion.

* **Racial Equity and Social Justice Challenge:**

Objective: Address systemic racism and promote social justice through technology solutions.

Requirements: Design tools for documenting and addressing racial discrimination, promoting diversity and inclusion in workplaces and institutions, supporting grassroots activism, and advancing policy reform efforts.

**Some reference Projects:**

<https://github.com/purvigujar/CodeForGood-22/tree/main>

<https://github.com/Mfuadshidqi/project_capstone_C22-PC388>

<https://github.com/gandhi25samar/Bhumi>

**Summary:**

The different tech sets can be used as per the problem statement selected by the team.

Common technologies and tools:

**1. Programming Languages:**

• JavaScript (for front-end web development)

• Python (for back-end development, data analysis, and machine learning)

• Java, Kotlin, or Swift (for mobile app development)

• HTML/CSS (for web development)

• SQL or NoSQL databases (such as MySQL, PostgreSQL, MongoDB)

**2. Frameworks and Libraries:**

• React.js, Angular, or Vue.js (for building interactive web applications)

• Node.js, Flask, or Django (for building server-side applications and APIs)

• Express.js (for building web servers in Node.js)

• TensorFlow or PyTorch (for machine learning and artificial intelligence)

**3. DevOps and Deployment:**

• Git and GitHub (for version control and collaboration)

• Docker (for containerization)

• Kubernetes (for container orchestration)

• Continuous Integration/Continuous Deployment (CI/CD) pipelines (e.g., Jenkins, Travis CI)

**4. Data Visualization and Analytics:**

• D3.js, Chart.js, or Plotly (for interactive data visualization)

• Pandas, NumPy, or SciPy (for data manipulation and analysis)

• Jupyter Notebooks (for exploratory data analysis and prototyping)

**5. Cloud Platforms:**

• Amazon Web Services (AWS), Microsoft Azure, or Google Cloud Platform (GCP) for hosting and deploying applications, databases, and machine learning models.

**6. Communication and Collaboration Tools:**

• Slack, Microsoft Teams, or Discord (for team communication)

• Zoom, Google Meet, or Microsoft Teams (for virtual meetings and presentations)

**References:**

1. <https://levelup.gitconnected.com/winning-the-code-for-good-hackathon-24f6be90c718>
2. <https://medium.com/@saujanyaraj.07/winning-the-jpmorgan-chase-co-code-for-good-india-hackathon-2023-de4e4b854f14>