

Type of Event: Star event

Name of the Event: CU/Code Chef - Solve the SDGs-Hackathon Challenge

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About the Event:

On September 25th, 2015, the 193 Member States of the United Nations officially adopted 17 Sustainable Development Goals (SDGs) at the Sustainable Development Summit, aiming to solve issues across the three dimensions of social, economic, and environmentally sustainable development from 2015 to 2030 in an integrated way for the betterment of humankind.



We all shoulder the important responsibility and have our part to play in helping achieve the sustainable development goals. Keeping this in focus Chandigarh University would like to invite your solutions for the first-ever national student hackathon “Solve the SDGs.”

The event seeks to look for innovative and creative solutions to challenges that are being faced globally. The Sustainable Development Goals of Sustainable cities and communities, Quality

Education, and Decent Work and Economic Growth are the challenges that will be targeted by the hackers at Chandigarh University's SDGs-Hackathon Challenge.

Objective of the Event: To provide a platform to programmers to solve real life problems recognized and adopted by United Nations as sustainable development goals.

Participation Detail: Teams can consist of at least two team members to a maximum of five members. Exceptions can be made for teams to have more than five members on a case-by-case basis. Contact the hackathon committee in case you need to have a team of more than five members.

Changes to team members are not permitted after Saturday, September 04th, 2021 at 12:00 Noon. Exceptions can be made on a case-by-case basis as decided by the organizing committee.

Rules:

- I. A team can submit only one entry for the hackathon. Participation at the hackathon is subjected on a "per-team" basis meaning you are not allowed to be on more than one team at the event.
- II. To ensure a level field for all contestants, all code must be created only at the hackathon. You are permitted to use publicly developed and openly licensed API's and SDKs for your project.
- III. You will only be able to use a pre-public release of a product in developing your project if you bring at least one extra version that can be used by other teams in the Hackathon and provide any user support needed to teams using the device.
- IV. Assets, SDKs, APIs or other tools or components available under a trial license may be used.
- V. Any software development tools, game engine, IDE, and/or programming language can be used for the event. If a team member uses a purchased tool licensed to him or her and the license is not transferable to other members, the member's team must choose one available to all developer teams.
- VI. No development may start before the actual date and time of the event. Any teams that violate this rule will be automatically disqualified. The first line of code should be written on day of hackathon kick starts. However, we encourage you to brainstorm ideas and create groups for discussion on our platform.

Code of Conduct:

Our hackathon is dedicated to providing a harassment-free experience for everyone, regardless of gender, gender identity and expression, age, sexual orientation, disability, physical appearance, body size, race, ethnicity, nationality, religion, previous hackathon attendance or computing experience (or lack of any of the aforementioned). We do not tolerate harassment of hackathon participants in any form. Sexual language and imagery are not appropriate for any hackathon venue, including hacks, talks, workshops, parties, social media and other online media. Hackathon participants violating these rules may be sanctioned or expelled from the hackathon at the discretion of the hackathon organizers.

CHALLENGES FOR THE TEAMS

1. Business Transformation:

SDG 11: Make cities and human settlements inclusive, safe, resilient, and sustainable.

Challenge: Are there spaces, places, materials, or systems in a city you know well that you might redesign, rethink, repair or repurpose in ways that add social, natural, or economic benefits? How can your solution help your community leapfrog into truly innovative spaces? How will your solution advance progress toward Sustainable Development Goals, in particular?



2. Communicating for Impact

SDG 16.10: Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements?

Challenge: Can you design a knowledge network to combat misinformation and disinformation in social media? Can you design the network to be equitable, inclusive, and interoperable, and enable it to function across borders at local, regional, and global scales? How can your solution help your community leapfrog into truly innovative spaces? How will your solution advance progress toward Sustainable Development Goals, in particular?

3. Data Revolution

SDG 16, Target 16.7: ensure responsive, inclusive, participatory, and representative decision-making at all levels?

Challenge: Advances in sensors, analytics and the proliferation of internet-of-things devices have created data-rich and potentially valuable opportunities for decision-makers and citizens. Can you design an application that uses such data for societal good while simultaneously guaranteeing the privacy of individuals? How can your solution help your community leapfrog into truly innovative spaces? How will your solution advance progress toward Sustainable Development Goals, in particular?

4. Innovation at Scale

SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all?

Challenge: Can you design an innovation in an education system — in learning processes, pedagogical practices, and social relevance — that would make it more equitable and

inclusive? How would you go about including the system's stakeholders, to ensure change is co-created? How can your solution help your community leapfrog into truly innovative spaces? How will your solution advance progress toward Sustainable Development Goals, in particular?

5. **Future of Development Finance Hackathon Challenge:**

SDG 1, Target 1.5: Build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social, and environmental shocks and disasters?

Challenge: Considering Covid-19 and the climate crisis, can you design a cash transfer system for individuals that could provide resources rapidly, efficiently, and equitably in emergency situations? How can your solution help your community leapfrog into truly innovative spaces? How will your solution advance progress toward Sustainable Development Goals, in particular?

6. **Universal Literacy and Numeracy**

SDG 4, Target 4.6: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

Problem: Literacy is one of the most essential indicators of the quality of a country's human capital. As per the latest data received from NSSO, India's literacy rate is about 74% - leaving a quarter of the population without basic reading and writing skills. ... While 22% of Indians fall below the poverty line, it has been estimated that more than half of the nation's population lacks even basic literacy skills. (Reading, Writing and Basic Arithmetic operations. While the country has made significant progress in improving illiteracy over the years, it continues to be home to 313 million illiterate population. So, it is a challenge for us to reduce the illiteracy ratio to improve the quality of human resource in the developing India

Challenge: Develop sustainable solution for achieving the target of Universal literacy and numeracy by designing an effective online Adult Education Module

7. **WASTE MANAGEMENT**

SDG 11, Targets: 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality, municipal and other waste management.

Problem: Each year, the electronics industry generates up to 41 million tonnes of e-waste. Of all these tonnes of noxious waste, a staggering 60-90 per cent of e-waste -worth nearly 19 billion dollars- is illegally traded or dumped, often with the involvement of transnational criminal gangs, a UN Environment Programme (UNEP) research had warned. Old computers and mobile phones, electric cables, televisions, coffee machines, fridges, old analogue radios are piling up in landfills across the world, UNEP explains. According to the research, e-waste often contains hazardous materials, which pose risks to human health and the environment, especially in developing countries.

Challenge: Develop sustainable solutions for the E- waste recycling.

8. MOBILITY/CONNECTIVITY

SDG 11 Target 11.2: by 2030, provide access to safe, affordable, accessible, and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

SDG 11 Target 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality, municipal and other waste management

Problem: With more and more people moving into urban areas, cities are growing tremendously, with especially suburban areas are growing without proper management and control. Therefore, traffic congestion is becoming a growing pain for many parts of the world. An average driver nowadays spends 32hours a year in traffic jams and those costs billions of dollars globally in lost productivity time, health care expenditures and not to mention the strong environmental impact with dangerously high air pollution. With today's advanced information technologies, a massive amount of transportation-related data is readily available that could be used for better smarter city planning, lowering congestion, and thus leading to better life quality in cities.

Challenge: How can cities lower their environmental impact by creating smarter mobility solutions?