

SIH 2022: Team Bandersnatch
PS: DR718

Please provide as much information as possible as it would help us evaluate the submission better.

Product/Idea

- What is the problem you are trying to solve?
(Do you have any supporting statistics from reliable sources, if so please do share.)
 1. University/College students are at times unable to find innovative projects to work on and there is no proper platform that facilitates cross sectional research between various universities and colleges.
 2. Students are unable to connect with professors (especially from different universities) with ease, for working on research opportunities. This gap needs to be addressed as these links which may have tremendous potential might not be getting made.
 3. Finally, there seems to be an absence of a cross-college community within different domains for students where intellectual discussions for all sorts of expertise can take place. It is hard to stay updated with all the advancements in technology and related fields for instance, and such a community could address this issue.
- How does your idea address the problem?

Absence of collaborative platforms for learning and research especially in the Non-technical fields are a hindrance to learning and improving oneself. Starting or continuing to learn and work in a field without appropriate peer support is greatly uninspiring.

'Exhibit' is an integrated platform where college students and professors can provide information about the projects done by them, ask for collaboration and/or simply engage in various discussions around specific tech/themes. Students will also be able to select their own skill level in a subkernel so others will know what they should expect in a collaboration.

This can also be helpful to search for research opportunities, as professors can put out posts and ask for students to join them on some ongoing project(s), which can be easily done with the collaborate feature. This can even help in connecting students and professors of different universities *globally* and thus the information on this platform will help in peer learning and will also help in cross functional research between various universities/colleges.

- Who are the target customers?
 1. University/College students looking to showcase unique/innovative projects
 2. Professors looking for students to work on their research projects
 3. Students who want to collaborate with peers for project work
 4. Students/professors wanting to engage in interesting discussions around particular themes/tools/tech.

- What makes your idea unique?
 - Our uniqueness lies in the fact that Exhibit is a one-stop platform that caters to organize showcasing of relevant work in all kinds of domains by beginners and expert students alike. Our transparent and minimalistic approach towards content filtering and creation makes using Exhibit a productive and hassle-free experience.
 - 'Exhibit' is also novel in the way that it displays precise scrollable content without the noise of offtopic posting to make every session a productive learning experience, which is done by the use of kernels (can be thought of as umbrella topics) and subkernels. For example, the Data Analysis sub kernel will contain posts related to the projects or research work done by the college in this field, filterable by tags or complexity of implementation. To prevent off-topic posting, we plan to keep it moderated by admins and after a while we plan to make Exhibit completely self-governing after achieving a user base of ~1k by implementing Role-Based Access Control as discussed in the previous and next answer.
 - Every sub kernel will allow one to post a project with a tag for "Request for Collaboration". This will also facilitate cross-domain collaboration for example a student working on Blockchain might need to consult someone in finance while working on their Cryptocurrency.
 - Machine Learning will be used to display relevant posts based on the tags that the user interacts with, which will be helpful in generating fresh ideas and in gathering knowledge about similar tools/domains.

- Do you have a revenue generation model? If so please do share.
 1. Advertisements: Our main source of Revenue would be generated by selling ad space.

2. Premium: Users that have a premium account will have an advantage over free account holders.
 - a. Premium users can contact college students and professors directly through our platform without connecting with them.
 - b. Further, premium would provide users with detailed analytics regarding their posts and an ad-free experience.
- What are the geographies you think the idea would be suitable for?

'Exhibit' can be used by college/university students and professors from all around the globe.

- What are the risks associated with your idea and how can you mitigate it?

'Exhibit' requires that all University students and professors actively engage in project discussion collaboration with peers and keep updating the database of project works taken up at various levels by the students in order to effectively facilitate peer learning and cross-functional research among students from different colleges.

- Who are the stakeholders involved in order to bring this idea/product/service to the market?
(Ex: State govt, Department of trade and taxes, pollution control board, Manufacturers)

AICTE, MHRD

Intellectual Property Assessment

- Is your idea patentable or patented?
(If so please provide details)

Yes, 'Exhibit' is patentable.

- Is your idea built on existing work? If so, how is it different?

There are some internal platforms available within some universities where professors can post research opportunities for students. However, there is no platform currently available where students from different universities can come together and discuss their projects and research work. 'Exhibit' aims to bring together students and professors from different universities and colleges to create a more inclusive and collaborative research and development environment.

Other than the professor-student connect feature of Exhibit, all other features are not readily available as a part of a one stop platform which promotes intellectual discussion, project sharing and peer to peer collaboration on projects. Machine learning based recommendation systems based on tags provided also make the idea unique and enhance the experience as well as allow students to upskill and get fresh ideas and perspectives.

Prototype/ Proof of Concept

- What is the nature of the prototype/ proof of concept you would be able to submit?
(Ex: Github repository, Hardware prototype)

Github repository: <https://github.com/Pallavbh23/exhibit-sih22-nsut>

- Have you completed pilot tests for your prototype/POC? If so please share.

We haven't completed pilot tests yet.

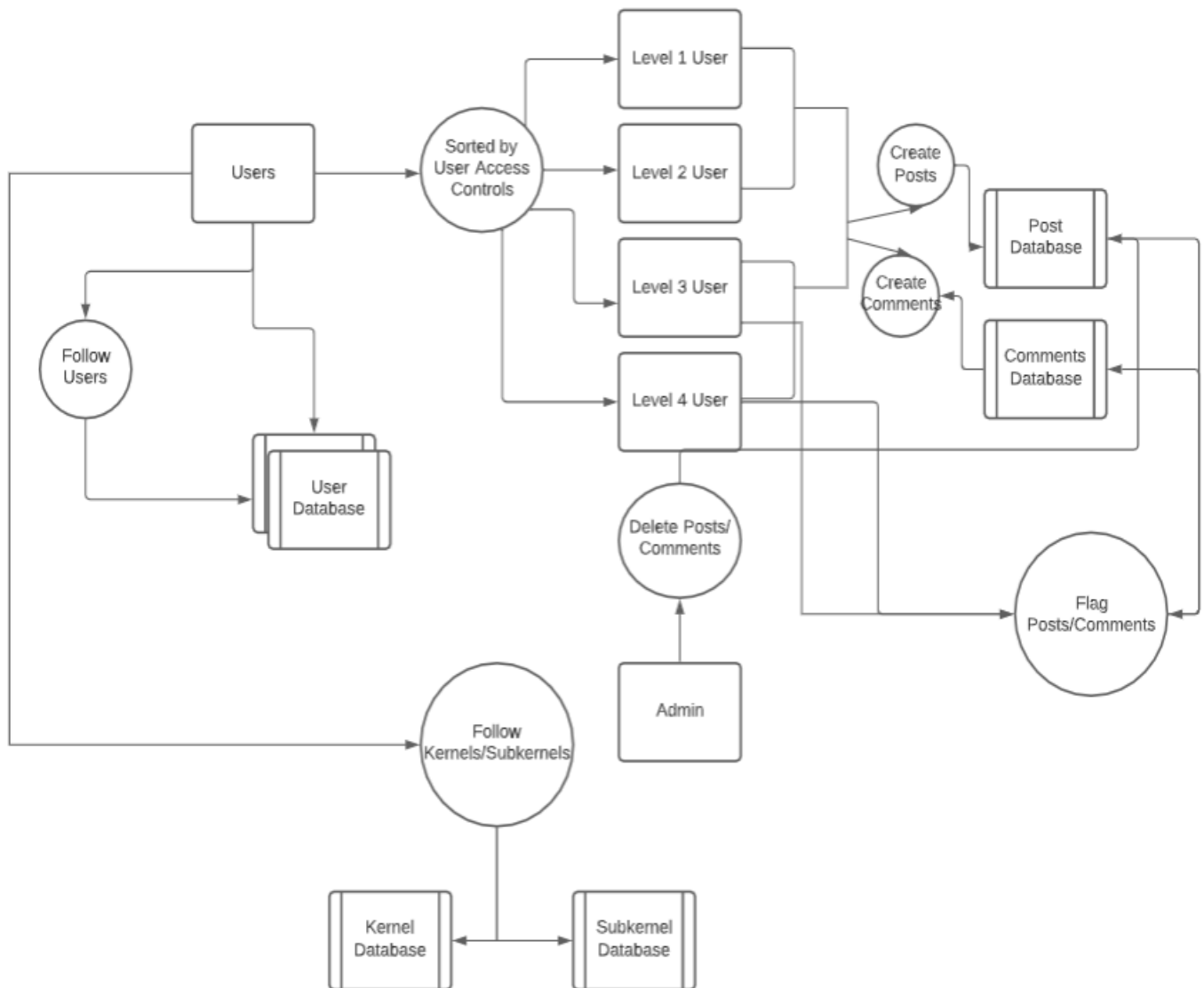
- What is the approximate cost of developing the prototype?

Currently, there is no cost of developing the prototype.

- Please share the relevant elements while submitting the POC/ Prototype
 - ☐ Block diagram
 - ☐ Software Architecture- Control/Data flow
 - ☐ Block Diagram of Data Flow
 - ☐ Hardware architecture
 - ☐ Components/ Connectors
 - ☐ CAD models
 - ☐ Visual/Touch Interface
 - ☐ (Mechanical actuators/switches, touch sensitivity, haptics)

(PTO)

Data Flow Diagram:



Use case diagram:



Supporting details

- What regulatory requirements have to be met to bring the idea to life?

'Exhibit' requires that all the University students and professors register and then login through their university email IDs in order for them to be classified as an authentic user.

- Do you have a business plan/ commercialization strategy? If so please share.

For revenue generation we intend to create a premium plan for exhibit users where they can buy a premium subscription at a nominal cost and get access to exclusive features. We also intend to sell ad space once the app reaches a certain level of popularity and user base.

- What is a rough estimate of manufacturing/operational costs?

The operational costs will depend upon the deployment of the platform and maintenance of databases. The estimated cost should be around Rs. 2000 per year initially.

- What is the volume of products/ amount of revenue do you expect to make in the first year?

Our revenue making streams include adspaces and premium feature. The expected revenue will depend on the number of ads clicked and the number of premium users.

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For Problem Statement: **DR718**