IPRO Problem Statements

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Problem Statements

**Semester Timeline**

This week: Develop one or two (or more)

problem statements

Next week: Work with your team to align a

problem statement to help you start the project

Rest of class: Update and evolve problem

statement as new information is gathered.

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Problem Statements

Your problem statements will be based on a high level theme

**High Level Theme**, *e.g. Portable Energy*

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Given by sponsor

Problem statements developed by students

Problem Statement Template

Our user: Students and Visitors

Needs: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Because: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parameters

Student generated

Relate to the larger theme...but is a topic you and your teammates care about

A small but important step in addressing the large theme

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Problem Statement: Example

**Why is this a good statement?**

- Specific user group - Real need based on interviews with users lead to... - Many concrete solutions including a portable

refrigerated storage area. - Relates to energy savings (grouping together) - But also something students

care about

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**Big Theme**: *Portable Energy*

**User**: Vendors at Fiesta Del Sol

**Need**: a reliable way to store refrigerated food overnight at the festival

**Why is this meaningful**: Vendors spend time and money to send food back to restaurants since there is no place to store overnight

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Suggested Process

**Consider the larger theme...** How can you break it down into smaller, more manageable sub-problems?

**Research the sub-problems...** Try to find areas that overlap with your interests Focus on facts, only state what you know to be true

**Author several problem statements and pick the best one**

**Be prepared to share your problem statement**

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Problem Statement Template

**Problem Statement: 1**

Our user: IIT Alumni

Needs: An app that would provide a comprehensive Mies campus experience to a variety of incoming IIT alumni.

Important: University needs to invest in a way for people to get to events, classes or even buildings in an electronic manner making it easier for people to arrive.

Why is it worth solving?

The current IIT virtual tour is very limited, poor user interface and some photos are outdated. Another thing is that it isn't a full tour and some places have only 1 photo.

Source:

<https://appliedtech.iit.edu/information-technology-and-management/about/virtual-campus-tour>

<https://roundme.com/>

**Problem Statement 2:**

Our user: Students

Needs: An app that will provide students with a detailed overview of the IIT campus. Including hours, locations, events, buildings, attractions, food menus and classrooms.

Important: Freshman and incoming transfer students need a platform to quickly garner critical info about the school. 71% of students look at their phone for the school map to get somewhere. The current IIT virtual tour has a very poor interface and is hard to navigate. Current cafeteria menus are a bit buggy and hard to navigate, specifically on mobile.

Sources:

<https://www.dineoncampus.com/iit>

<https://blog.concept3d.com/students-actually-use-campus-maps>

<https://appliedtech.iit.edu/information-technology-and-management/about/virtual-campus-tour>