

SWE 482 Human-Computer Interaction
1st Semester 2023/2024

Assignment 1 Template

In this assignment (Assignment #1) you will do groundwork for design ideas that are rooted in real people's needs/goals/values. There are three steps. First, **observe** three different consumers; pay special attention to breakdowns, unmet needs, and clever work-around. Next, **brainstorm** a set of user needs from your observational insights. Finally, based on your user needs, gain **inspiration** from existing solutions.

Submit your work according to the **template** provided.

STEP 1: OBSERVATION

Watching how people do things is a great way to learn their goals and values, and come up with design insight. We call this **need-finding**. This assignment helps you train your eyes and ears to come up with design ideas. Your goal is to uncover user needs, breakdowns, clever hacks, and opportunities for improvement.

1. Explore the existing techniques and technologies that are related to your project idea (at least 3).
2. Choose three people allocated to different approaches, techniques and technologies. Ensure that you explain the purpose of the experiments and gain permission to observe them.
3. Observe the behavior of participants during utilization of the technique. In addition, solicit their feedback directly.

STEP 2: BRAINSTORM NEEDS/GOALS/TASKS

After observing 3 involved stakeholders, go over your findings as a group and use them to brainstorm a list of specific user needs. Go for volume when you brainstorm, brainstorming is a group activity and should be fun! All ideas are good ones at this stage. You are not looking for solutions yet; focus on user needs, goals and tasks only. An example of a need might be "Many consumers have difficulties in <aspect related to your idea>, so they need an easy way to accomplish that".

STEP 3: FIND INSPIRATION

Your next step is to find inspiration for the solutions that you will consider in Assignment #3. Inspiration can be existing applications, artifacts, products, or services that relate to your concept. Here, web search is your friend. Some things you find will be quite related, but it is important to interpret "related" broadly. Note that existing technologies come in all forms such as gadgets.

Pick out your 2 favorite inspirations or creative design ideas. For each one, give a brief explanation (1-2 sentences) of why you chose that inspiration or design (What did you like about it? What did you learn from it? In other words, why did it inspire you?)

Submit (Use Template)

1. A captioned photograph from the participants you observed. The photo and caption should capture a particularly interesting moment/breakdown/work-around from the observation. (You should have a total of 3 photos with corresponding captions for each).

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2. A list of at least 4 needs, 4 goals and 4 tasks inspired by what you observed and collected from your brainstorming session.
3. Two existing design or inspirations that relate to your thinking (either physical objects or applications). The relationship could be very concrete or very abstract. Give brief explanations of why you chose those designs.

Group Number	
Section Number	44887

Assignment Number	1
Due Date	Thursday 5/10
Date of Submission	Wed 11/10

Group Members			
#	Name	ID	Percentage of tasks performed by member
1	Sultan Alenzi	442106994	20%
2	Abdulmalek Shreim	442102541	20%
3	Khalid Alharbi	442103477	20%
4	Abdulmjeed Alromaih	442101425	20%
5	Abdulrahman Alshabani	442102669	20%

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PART 1: OBSERVATIONS

<First describe the users in your observation study>

<i>Participant</i>	<i>Age</i>	<i>Gender</i>	<i>Approach used</i>	<i>Average knowledge of the techniques and technologies used (1-5)</i>
Zaid	19	Male	He searches for colleges admission & acceptance rate in the college via twitter	4
Ahmed Al-Abdulkarim	20	Male	If he wants any information related to the university acceptance rate approval, I ask the administration office.	3
Sulaiman aljarbou	22	Male	If he wants to search for news about the university, He search through Google	4


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<p>Photo #1</p>	
<p>Caption</p>	<p>Context of the photo: Breakdowns: struggles to find reliable and up-to-date news related to university admissions, scholarships, and educational trends. Clever workaround: follows education-related social media accounts for news updates.</p>

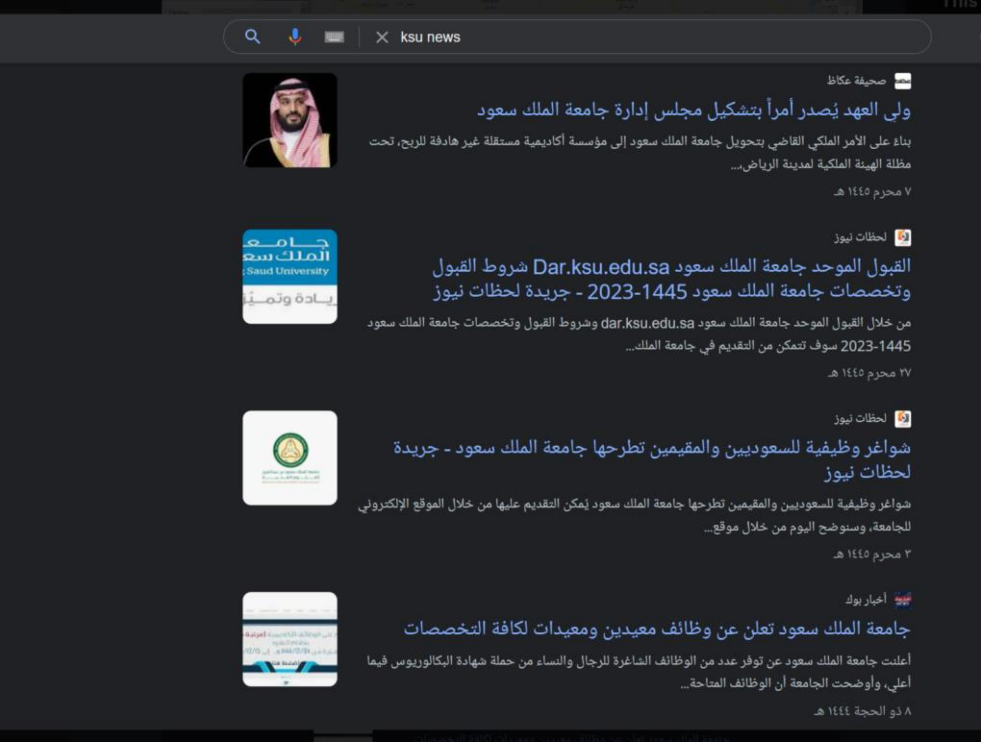
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<p>Photo #2</p>	
<p>Caption</p>	<p>Context of the photo: Breakdowns: struggles to efficiently track and support multiple students' university applications and schedules Clever workaround: uses spreadsheets and emails to manually track students' application progress like excel. In this photo here is Ahmed Al-Abdulkarim waiting for the support to ask about his acceptance rate.</p>

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<p>Photo #3</p>	
<p>Caption</p>	<p>Context of the photo: Breakdowns: Providing timely responses to prospective students is difficult. Clever workaround: relies on printed brochures and website content for showcasing the university. In the photo above Sulieman want to be up-to-date about the KSU news</p>

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PART 2: BRAINSTORMING

A list of needs, requirements, goals and tasks inspired by what you observed and collected from your brainstorming session. Go for volume (at least 4 in each and 6 for requirements).

Idea #	Goals
1	Viewing the time for the universities to open their registration.
2	Viewing universities latest news.
3	Viewing which universities that will accept them based on their high school percentage.
4	Helping them to choose the right university.
5	Viewing the acceptance rate for each university.

Idea#	Tasks
1	Search for universities based on high school percentage
2	Filter search for universities by location and college.
3	Browse the latest articles and news feeds.
4	Create profile for user to save their information
5	Notify the users when the registration period is open
6	Track the university registration date and time.
7	Save interesting articles for later reading.

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Idea#	Needs
1	The users have difficulties finding out latest news about universities so the system must be Easy to use and navigate.
2	The users want to have the correct information so the system must be comprehensive and accurate.
3	The users have difficulties looking at all universities scheduling so the system will make it easier for the user to look at all scheduling of the universities.
4	The users have difficulties determining which university they should choose so the system will help them with that.
5	The users must have a look at all universities simply so the system will give them all the details they will need.

Idea#	Main Requirements/Features
1	The user shall be able to login to the system.
2	The user shall be able to register to the system
3	The user shall be able to view the latest news of the universities.
4	The user shall be able to enter their high school percentage.
5	The system shall provide the user with the appropriate university based on their percentage.
6	The user shall be able to search in universities
7	The user shall be able to save university news
8	The user shall be able to view the schedule of the university's registration period
9	The user shall be able to edit his profile
10	The user shall be able to view his profile info.
11	The system shall remind the user when registration period is open

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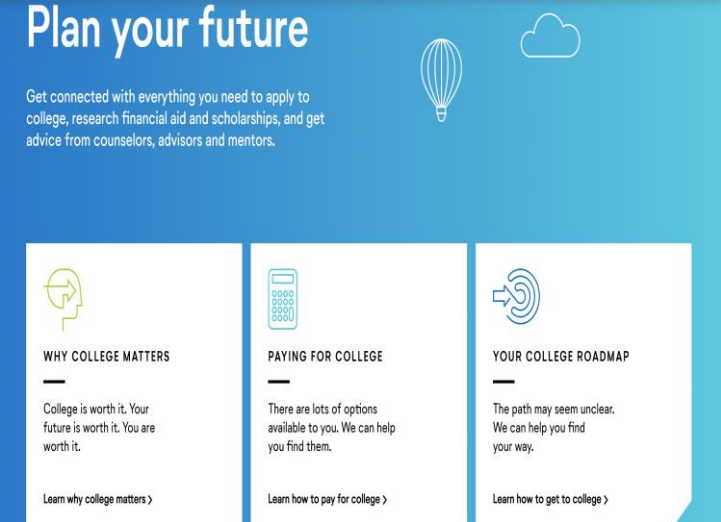
PART 3: FINDING INSPIRATION

Two existing design or inspirations that are related to your thinking (either physical objects, web sites, or applications). The relationship could be very concrete or very abstract. Give brief explanations of why you chose those **designs**.

#	Inspiration/ Design Idea (textual description, image, sketch, diagram, etc.)	Explanation of why you chose that inspiration or design (What did you take away from it? What did you learn from it?...In other words, why did it inspire you?)
1		<p>I chose (College Board's College Search Tool) as an inspiration because it embodies several key aspects that align with the goals of EduSys:</p> <ol style="list-style-type: none"> 1- User-Friendly Interface 2- Customization and Personalization 3- Data Integration

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2	 <p>The image shows a website mockup titled "Plan your future". The header is blue with a light blue gradient and contains a hot air balloon and a cloud icon. Below the header, there is a section with three columns. The first column is titled "WHY COLLEGE MATTERS" and features a light green icon of a head with a brain. The second column is titled "PAYING FOR COLLEGE" and features a light blue icon of a calculator. The third column is titled "YOUR COLLEGE ROADMAP" and features a light blue icon of an ear. Each column has a short paragraph of text and a link at the bottom.</p>	<p>I selected the (Common Application) as an inspiration because it offers valuable insights and design principles that align with the goals of EduSys:</p> <ol style="list-style-type: none">1- Streamlined Application Process2- Accessibility and Inclusivity
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