



GUJARAT TECHNOLOGICAL UNIVERSITY
Chandkheda, Ahmedabad
Affiliated



L. D. College of Engineering

A
Project Report
On

ARThub

Under subject of
DESIGN ENGINEERING – IIA
B. E. , Semester – V
(Computer Engineering Branch)

Submitted by:
Group-Id: 393209

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Academic Year

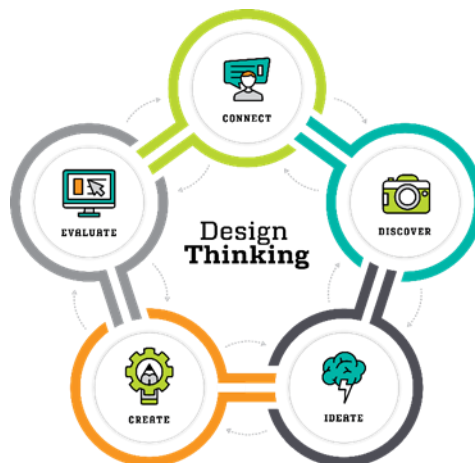
INTRODUCTION

1.1 Design Thinking:

What is Design Thinking?

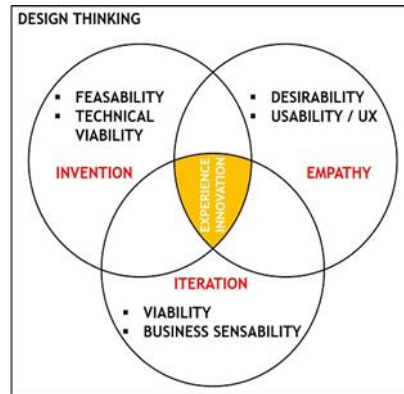
Design Engineering is the best example of critical thinking and solving problem by developing a product which can be the best solution of that problem. Suppose if we saw a problem then we don't think about solving it rather we go and register a complain about it.

- A cognitive problem-solving process.
- Origins = Edison and other inventors.
- Encourages creative consideration of a wide array of innovative solutions.
- Can be applied to any field, including higher education.
- Approaches challenges from the point of that user's unmet needs.
- A skill that allows a designer to align.
- What people want with what can be done and produce a viable business strategy that creates customer value and market opportunity.



The given diagram defines the steps to detect the problem and solution of the problem by Design Thinking.

In design thinking we believe that rather waiting for genius to come and show us the way we should try something new on our own! With design thinking, we can build the bridges to cross over the other side to the new land of promised future, so we can reliably manufacture our own miracles.



- Innovation is iterative and the outcome of series of experiments.
- Effective innovation involves risk-taking, assessment and mitigation.
- Innovation begins with creativity.
- Innovation is smooth linear process.
- Innovation is about risk-taking.
- Innovation begins with Curiosity.
- Encourages creative consideration of wide array of innovative solutions.
- Can be applied to any field, including higher education.
- Approaches challenges from the Point of View (POV) of the end user.
- Calls for a deeper understanding of that user's emotional needs.

1.2 Objective:

To create an integrated platform which monetarize various factors affecting irrigation such as weather, soil moisture level etc. and its primary aim is water and energy conservation.

ABSTRACT

- ARThub creates a single network of artists and organizers worldwide. ARThub is dedicated platform to where you can promote your talent through network building opportunities and share your events with other art professionals.
- ARThub provides the following exciting features to all categories of users of the system:

For artists:

- Explore worldwide opportunities on the go.
- Build your profile and develop your reputation across the industry.
- Advertise your interest in collaborating, performing and teaching.

For organizers:

- Discover new talent locally and overseas.
- Use the network to organize events and short notice.
- Find artists who are travelling in your neighborhood and available at a time that suits you.

For end-users:

- View amazing artworks.
- Take inspiration and create your own magic.
- Buy art supplies from well-known brands.
- Contact directly with artists for customized orders.

Amazing key features:

Artist search: find artists anywhere in the world

Events: create and publish events to make them visible to your connections or the whole network

Endorsement: endorse your fellow artists by recognizing their talents and skills.

Opportunities: find about all the latest relevant opportunities.

Conversations: chat and save your conversations with your connections.

Profile: share your profile and build your reputation across the network.

AEIOU CANVAS

AEIOU is an investigative tool to help interpret observations gathered by ethnographic practices in the field. It is an Observation tool. Its two primary functions are to code data, and to develop building blocks of models that will ultimately address the objectives and issues of a client.

AEIOU stands for 5 elements to be coded: Activity, Environment, Interaction, Object, and User.

| AEIOU Summary : | | Group ID: 393209 | Date : | Version : 1.0 |
|--|--|---|--|---------------|
| Domain Name : ARTHUB | | | | |
| Environment: <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Virtual Environment</div> | Interactions : <i>One can have Interactions with anybody.</i> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Chatting</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Voice Call</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Video Call</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Going Live</div> | | Objects : <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">PC or Smartphone</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Database</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Internet</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Account</div> | |
| Activities : <ul style="list-style-type: none"> - Creating / Deleting / Deactivating Accounts - Edit Profile, (Remove/Edit Profile image), Add/Edit Bio or links - Posting Reels, Photos & Videos, Like, Share, comment on Posts - Viewing Public Posts, saved audios & videos - Edit/ Delete / Archive / Unarchive your Posts. - Adding Restrictions on comment section, Hiding like counts. - Adding stories & keeping highlighter, liking other's stories - Muting/Blocking and Restricting other Accounts, Reporting other accounts - Chat with anyone. - Buy, Sell, advertise your products - Creating Surveys & analyzing it, for better use - Showing similar liked feeds to user. - Donating to direct authentic at any cases for noble use - Sensitive content control. - Following People, Confirming Requests & Unfollowing people. | | Users : <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">CONTENT CREATORS [Memers]</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: pink;">Bussiness Users [selling products]</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Artists [Dancers, Musicians]</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Admins, Influencers [Beautycons]</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: pink;">Normal Viewers</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; background-color: yellow;">Sports people</div> | | |

1) Activities:

Activities are goal-directed sets of actions—paths towards things people want to accomplish. What are the modes people work in, and the specific activities and processes they go through?

Activities in our system are:

1. Creating/ Deleting/ Deactivating Account.
2. Edit Profile.
3. Posting Reels, photos and videos, like, share and comment on posts.
4. Viewing public posts, save audios and videos.
5. Edit/ delete/ archive/ unarchive posts.
6. Adding restrictions on comment section/ hiding like counts.
7. Adding stories, highlight stories and like others stories.
8. Muting, blocking and restricting other accounts. Reporting other accounts.
9. Chat with anyone.
10. Buy, sell, advertise your products.

11. Creating surveys and analyzing it for better use.
12. Showing similar liked feeds to user.
13. Donating to direct authorities at any crisis for noble use.
14. Sensitive content control.
15. Following people, confirming requests and unfollowing people.

2) Environment:

Environments include the entire arena where activities take place. What is the character and function of the space overall, of each individual's spaces, and of shared spaces?

Environments in our system are:

1. Virtual Environment

3) Interactions:

Interactions are between a person and someone or something else; they are the building blocks of activities. What is the nature of routine and special interactions between people; between people and objects in their environment, and across distances?

One can interact with anyone in the system.

For interacting following features are provided:

1. Voice call
2. Video call
3. Chatting (Direct messages)
4. Going live

4) Objects:

Objects are building blocks of the environment, key elements sometimes put to complex or unintended uses (thus changing their function, meaning and context). What are the objects and devices people have in their environments and how do they relate to their activities?

Objects in our system are:

1. PC or Smartphone
2. Internet
3. Database
4. Account

5) Users:

Users are the people whose behaviours, preferences, and needs are being observed. Who is there? What are their roles and relationships? What are their values and prejudices?

Users in our system are:

1. Content Creators
2. Business Users
3. Artists
4. Admins

EMPATHY CANVAS

| | | | |
|--|--|---|--------------------------|
| Design For ARTHUB | | Design By 393209 | |
| Date | | Version 1.0 | |
| USER ADMIN'S VIEWERS BUYERS ARTISTS SELLERS SHOP OWNERS | | STAKEHOLDERS ADMIN'S SELLERS ARTISTS ORGANISATION SHOP OWNER RETAILERS | |
| ACTIVITIES | CREATE ACCOUNT | POST, VIEW ART ILLUSTRATION | SEARCH NEAR BY ART SHOPS |
| | CONTACT ARTISTS, BUYERS | BUY/SELL PRODUCTS | DONATE/PROMOTE ARTISTS |
| RECREATE POST PARTICIPATE IN ART COMPETITION | | | |
| STORY BOARDING | | | |
| HAPPY | ARTISTS ARE HAPPY AS THEY CAN REACH OUT TO MAXIMUM PEOPLE AND SHOWCASE THEIR TALENT. | | |
| HAPPY | A CLIENT WAS HAPPY AS HE EASILY RECEIVED A PORTRAIT DRAWING IN A SHORT NOTICE FOR HIS MOTHER BY DIRECTLY CONTACTING AN ARTIST. | | |
| SAD | ART SUPPLIES PURCHASED FROM THE ONLINE STORE ARE EXPENSIVE DUE TO DELIVERY CHARGES AND SOMETIMES RECEIVED IN DAMAGED CONDITION. | | |
| SAD | SOME USERS DO NOT PROVIDE APPROPRIATE CREDITS/RECOGNITION TO ARTISTS WHOSE POSTS THEY RECREATE WHICH THEN RESULTS IN COPYRIGHT ISSUES. | | |

User:

1. Admins
2. Artists
3. Viewers
4. Sellers
5. Buyers
6. Shop Owners

Stakeholders:

1. Admins
2. Organizations
3. Sellers
4. Shop Owners
5. Artists
6. Retailers

Activities:

1. Create Account.
2. Post, view art illustrations.
3. Search nearby art shops.
4. Recreate posts.
5. Contact artist/sellers.
6. Buy/sell products.
7. Donate/promote artists.
8. Participate in art competitions.

Story Boarding**Happy Story:**

Artists are happy as they can reach out to maximum people and showcase their talent.

Happy Story:

A client was very happy as he easily received a portrait drawing in short notice for his mother by directly contacting an artist.

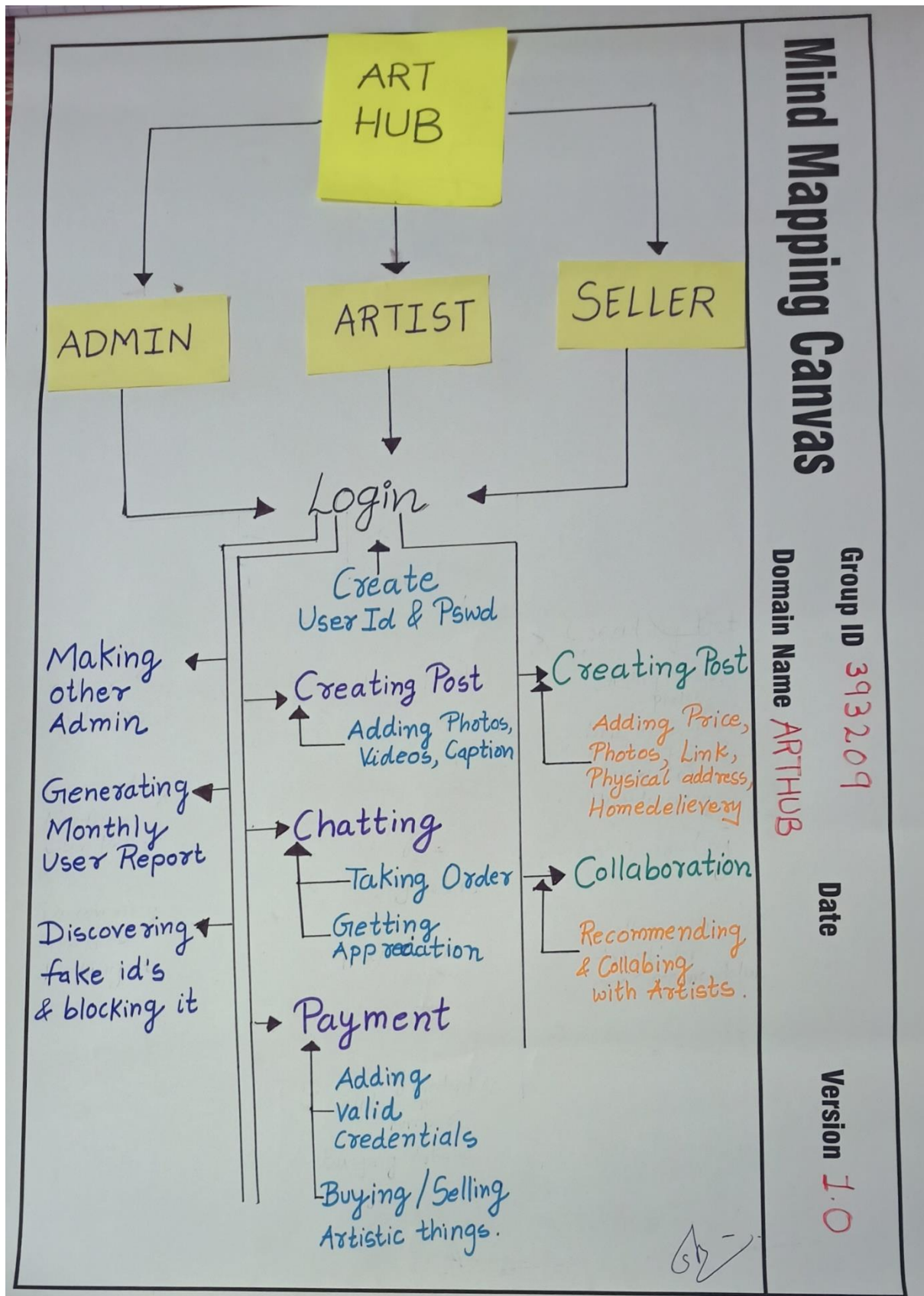
Sad Story:

Art supplies purchased from the online store are expensive due to delivery charges and sometimes received in damaged conditions.

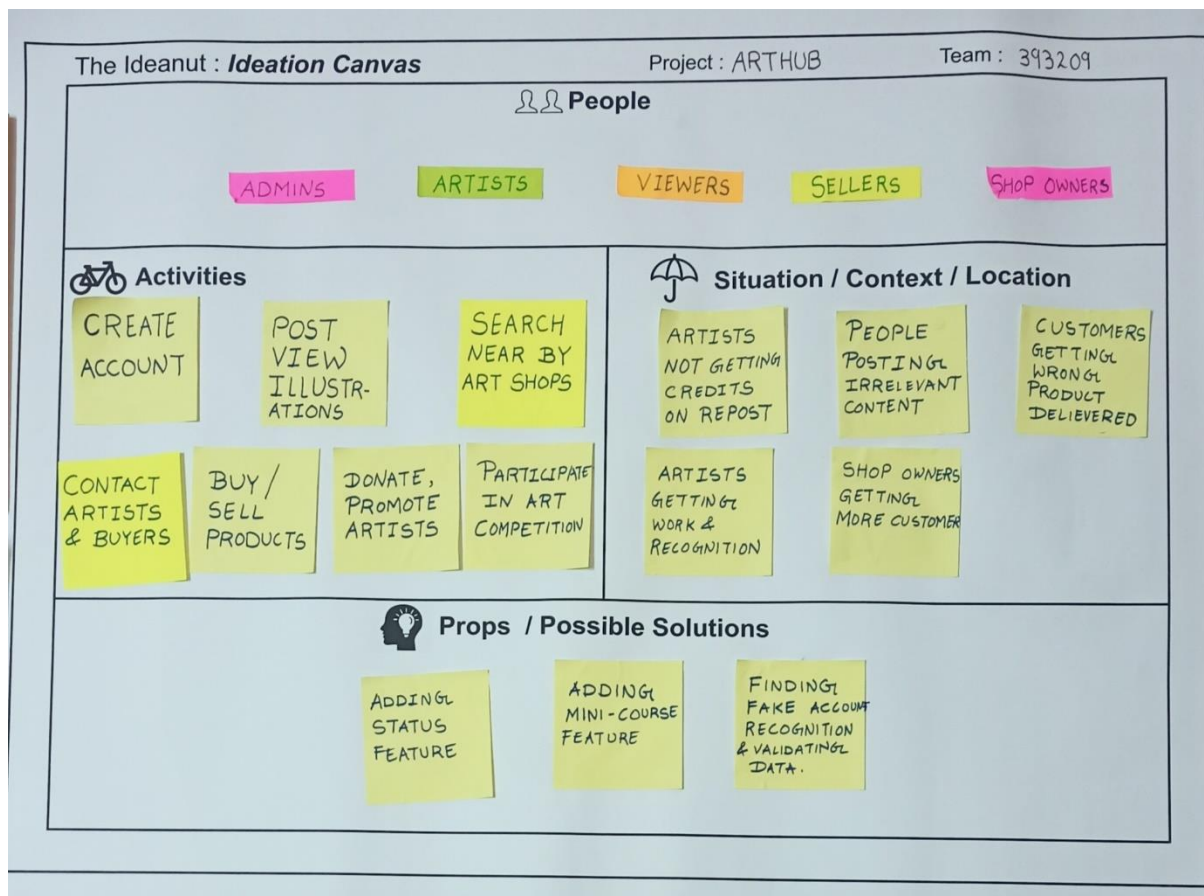
Sad Story:

Some users do not provide appropriate credits/ recognition to artists whose posts they recreate which then results in copyright issues.

MIND MAP



IDEATION CANVAS



People:

1. Admins
2. Artists
3. Viewers
4. Sellers
5. Shop owners

Activities:

1. Create Account.
2. Post, view art illustrations.
3. Search nearby art shops.
4. Recreate posts.
5. Contact artist/sellers.
6. Buy/sell products.
7. Donate/promote artists.
8. Participate in art competitions.

Situation/Context/Location:

1. Artists not getting credits on repost.
2. People posting irrelevant content.
3. Customers getting wrong product delivered.
4. Artists getting work and recognition.
5. Shop owners getting more customers.

Props/Possible Situation:

1. Adding status feature.
2. Adding mini course feature.
3. Finding fake account, recognition and validation of data.

PRODUCT DEVELOPMENT CANVAS

| Product Development Canvas | | |
|--|---|--|
| <p>? Purpose</p> <p>What is the purpose of this concept you're developing? Does it solve a problem, or it enhances a certain experiences? Is it serving a need or it is trying to create a new need or tap an untapped need?</p> <p>FOCUSES ON ART, WHICH CAN BE ILLUSTRATION, PAINTING etc.</p> <p>TRIES TO INCULCATE A PLATFORM, WHERE ART COMMUNITY CAN CREATE MAGIC TOGETHER</p> | <p>Product Experience</p> <p>Define what your customer should feel like when he uses your product / service? Emotions, feelings would define his experience? feeling Convenience, or feeling of buying more with less (cost conscious) or feeling of greater security, safety etc.</p> <p>CUSTOMERS SAID, 'THE ART EYE-CATCHER' Because of several ART shown.</p> | <p>Customer Revalidation</p> <p>Once you're finished with your features set, test with the customer / user if the features, functions are useful. Speak to the customer / user</p> <p>ARTISTS ARE HAPPY, BECAUSE THEY GET RECOGNITION & WORK</p> <p>CUSTOMERS CAN ORDER ONLINE, & GIVING CUSTOMIZE TO WORK TO ARTISTS</p> <p>SHOP OWNERS GETTING MORE ORDERS</p> <p>REPOSTING WORK & NOT GIVING CREDITS TO ARTISTS</p> |
| <p>Product Functions</p> <p>Functions are a products answer to user problems / need. They do something that user wants. They are often verbs in nature. Every function is powered by many features. Multitasking is a function. Browser tabs is a feature that powers the multitasking feature. A function can have one or more features powering it. Functions are very generic in nature. Features are often more specific. Functions can be similar to product experience. Safety (product function) provides a feeling of safety (product experience)</p> <p>Art is the main Eye-Centered, several forms of ART can be seen, where ARTISTS can get Recognition.</p> | <p>Product Features</p> <p>Product features are specific. One of more features will power a function. Antilock Brakes, Airbags are features that power the safety function. Browser tabs, Apple's home button to multitask between apps are features powering the multitasking function. Each feature will have many components/sub-components powering it. Sometimes a very popular component becomes a feature in itself! Like car stereo is a major component and a feature at the same time powering the in car entertainment function powering entertainment as a product experience.</p> <p>CREATE ACCOUNT</p> <p>POST PHOTOS & VIDEOS</p> <p>BUY/SELL ART PRODUCT</p> <p>CONTACT ARTISTS & BUYERS</p> | <p>Reject, Redesign, Retain</p> <p>Post customer validation, reject, those function or feature that the customers didn't find useful. Redesign those that were partially useful and retain those that the best. Iterate with this until all functions / features are accepted</p> <p>ARTIST CAN'T SPREAD THEIR TEACHING TO MAXIMUM PEOPLE</p> <p>FAKE ACCOUNTS AND POSTING IRRELEVANT CONTENT</p> <p>Solm.- ADDING TEACHING COURSE FEATURE</p> <p>Solm.- RECOGNITION OF FAKE ACCOUNT BY USING ADVANCED LANGUAGE</p> |
| <p>People</p> <p>Who is the key customer segment who will use this product / service or the end product of the concept you're pursuing? Write here about them, describe them a little</p> <p>ADMINS</p> <p>ARTISTS</p> <p>BUYER</p> <p>SELLER</p> <p>VIEWERS</p> <p>SHOP OWNERS</p> | <p>Components</p> <p>Components build up the features. For a airbag it will comprise a list of component like bags, nitrogen etc. that go into making it. For a tabbed browser it will comprise of various chunks of code that will make the tabs work. In cases where the feature is a major component, you could list here the auxiliary components that are required to make the major component work. You can also list new adjustments and innovations you're planning here at the component level.</p> <p>DATABASE</p> <p>INTERNET</p> <p>SMARTPHONE PC</p> | |

Purpose:

1. Focuses on art which can be illustrations, painting etc.
2. Tries to inculcate a platform where art community can create magic together.

People:

1. Admins
2. Artists
3. Viewers
4. Sellers
5. Buyers
6. Shop Owners

Product Experience:

Customer called it “THE ART EYE-CATCHER” because of several arts displayed.

Product Function:

Art is the main Eye-centered, several forms of ART an be seen, where artists can get recognition.

Product Features:

1. Create account.
2. Post photos and videos.
3. Buy/sell art products.
4. Contact artists and buyers.

Components:

1. Internet connectivity
2. Database
3. Smartphone or PC

Customer Revalidation:

1. Artists are happy because they get work and recognition.
2. Customers can order online and give customized orders to artists.
3. Shop owners getting more orders.
4. Reposting work and not giving credits to artists.

Reject, Redesign, Retain:

The upcoming versions include

1. Artists can't spread their teachings to maximum people.

Solution: adding teaching course feature.

2. Fake accounts and posting irrelevant content.

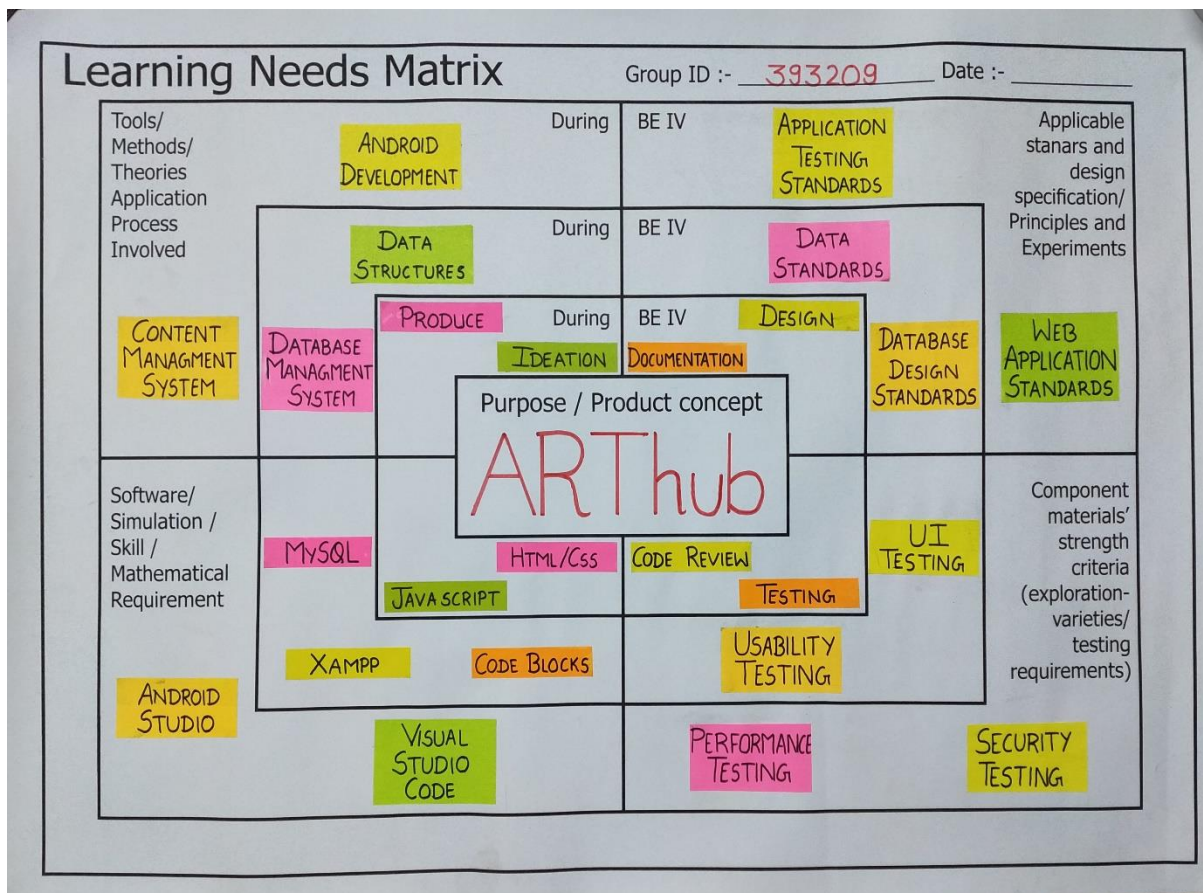
Solution: Recognition of fake accounts by using advanced language.

LEARNING NEED MATRIX

Learning Needs Matrix will help to identify the learning requirements at an early stage along with prioritization of specific learning along with defined time duration/ time allocation for each learning priority.

Identification will be focused on listing out both (i) the learning, which is included in some subject of the formal syllabus of your branch and (ii) the learning, which is required for solving the Design problem and which may not be included in the formal syllabi of the other subjects.

All such learning, required for developing the product, should be considered to be required to be studied for the group of students, who are working on the product. It may include learning of specific skills.



CONCLUSION

The ARThub is providing a single Platform for Artists to showcase their talents. It mainly aims to promote artists and their artworks. It allows them to advertise their work as well as sell them to online customers. Direct contact of customers and artists are allowed to remove any requirement of third party.

It also serves as a source of inspiration to new artists as well as non-artists to make something creative and share it with the world. Users who took inspiration from other artist's post can repost their work with proper recognition. Users can also donate to artists. As per the reviews of users, this platform is helpful to many talent-heads who are ambitious to create something new and show it to the world.