

# AML2155: Design Thinking and Idea Lab [CSE(AIML)]

## Assignment 1

Team number: G1T7 (Arijit Sarkar, Bikram Mondal, Debashish Sarkar, Koushik Ghosh)

Team name: Investo

### Background

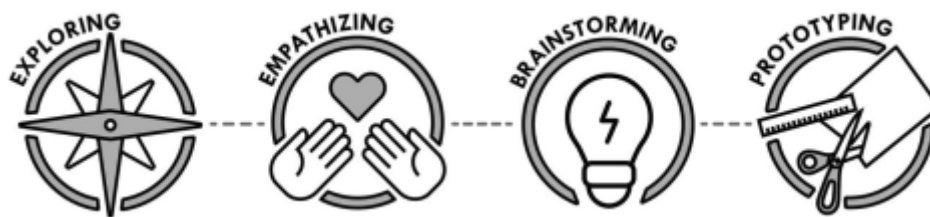


Figure 1: Stages of the Design Thinking Model

### Activity 1.1

For each of the ideas your team has identified, decide who can be your **design partner**. Design partner is one – or a group of – individuals you are designing for. With reference to Figure 1, you will need to remain in close contact – preferably meeting face to face whenever required -- with your design partner throughout the four stages. With this critical consideration, decide which *one* of the ideas your team identified would you like to pursue in the design project throughout the term. Write down the idea in about 100 words below:

#### InvestorHunt - "Where Ideas Meet Investors"

**InvestorHunt** is a web-based platform that connects aspiring entrepreneurs with real investors through a structured, AI-powered pitch process. Entrepreneurs begin by submitting video pitches, which are evaluated by an **AI Pitch Analyzer** for creativity and feasibility. Top scorers advance to a **live interview round**, and finalists earn **direct online meetings with real investors**. The platform also includes an **AI Mentor** to guide pitch preparation, **multi-language support with auto-translation**, **community feedback sections**, and **live streaming** of investor meetings. It makes fundraising accessible, interactive, and inclusive—empowering anyone with a bold idea to take the leap toward funding.

## Activity 1.2

# Watchtower

Fundamental attitude: WORK INTEGRALLY



### What is it?

During the discovery phase, the watchtower is used to determine what has already been done outside the organization and what is currently happening in area of the possible design problem.

### How does it work?

Focus your attention on the outside world by answering questions. Use the form to record your most important findings. Do you cooperate with others? Then use BRAINSTORMING to complete the form.

*Which comparable projects are there in the world?*

*Evalyze, Pitch AI, Pitchflow, Valurize, Oddup, Pitchago, Inodash AI Pitch Deck Evaluator.*

*Which inspiring products or services relate to the problem?*

*We inspired by the business reality television series **SharkTank India** that showcases entrepreneurs presenting their business ideas to a panel of investors.*

*Is there ongoing debate about the problem? If so, what are the pros and cons?*

*Yes, there's an ongoing and important debate surrounding the very funding challenges InvestorHunt seeks to solve—especially around **equity crowdfunding** and tech-driven pitch platforms.*

## Pros:

- **Access to Capital & Market Validation**

*Enables startups to raise funds from a wide investor base beyond traditional VCs, and validates demand from real customers*

- **Community & Exposure**

*Allows upcoming companies to build loyal communities and marketing momentum alongside raising funds .*

- **Flexible Terms vs VCs**

Founders retain more control over business terms, especially compared to VC deals

## Cons:

- **Dilution & Governance Complexity:**

Managing many shareholders, aligning expectations, and diluted ownership complicates governance

- **Regulatory Burden & Fraud Risk:**

Tightly regulated, with ongoing legal compliance needs and potential fraud

- **Time-Intensive & Marketing-Savvy Required:**

Campaigns demand considerable effort, with low success rates and significant preparation overhead

*Who are the inspiring persons or companies relating to the problem?*

*We inspired by the business reality television series **SharkTank India** that showcases entrepreneurs presenting their business ideas to a panel of investors.*

*Who are the competitors according to the client?*

*Evalyze, Pitch AI, Pitchflow, Valurize, Oddup, Pitchago, Inodash AI Pitch Deck Evaluator are the competitors for our project.*

*Are there any interesting start-ups tackling a different problem or challenge?*

### **1. 10mg (by Christian Nwachukwu)**

*An AI-powered credit scoring platform enabling collateral-free loans to healthcare providers in Africa, improving access to capital and patient care in underserved regions.*

### **2. CleanHub**

*Berlin-based environmental tech company using AI and blockchain-style traceability to collect and verify plastic waste recovery in coastal areas, preventing ocean-bound pollution.*

*Who are the competitors from the users' perspective?*

1. **Angellist**
2. **OurCrowd**
3. **Gust**
4. **SeedInvest**

*What would be game changing in the business/branch where the problem prevails?*


**1. Blockchain-based tokenization of startup equity**, enabling fractional ownership and built-in secondary liquidity via smart contracts.

**2. Immersive AR/VR investor experiences**—virtual walkthroughs of product demos, tours, or founder pitches that drastically deepen investor engagement.

## Activity 1.3

# Assumption busting

Fundamental attitude: EXPERIMENT



### What is it?

Assumptions can seem so logical that you do not question them. Right from the start, dare to question what is 'logical or normal', in that way, you come to new insights and discover new and different ways to proceed.

Assumptions include:

- something that seems impossible to do: 'people cannot fly';
- something that works via rules or conditions: 'packages do not fit in the letterbox';
- something that people strongly believe in: 'bugs are a problem'.

With this tool, you question everything about your problem and can test how others think about it. Assumption busting is a simplified form of HOW MIGHT WE.

### How does it work?

- Formulate at least twenty assumptions about your design problem that seem completely logical and normal. Let every member of the design team do this individually.
- Question assumptions: What if people can fly? What if all packages fit through the letterbox? What if bugs are the most useful pets you could wish for?

### Notes from this activity

#### **1. InvestorHunt: Redefining How Startups Connect with Investors**

##### *i). Replaces traditional barriers such as:*

- Pitch decks
- Expensive professional networks
- Exclusive access to venture capitalists (VCs)

##### *ii). Enables video pitch submissions from anyone, regardless of:*

- Geographic location
- Language proficiency

##### *iii). Utilizes an AI Pitch Analyzer to:*

- Evaluate submitted pitches
- Provide consistent, unbiased feedback

*iv). Enhances evaluation through:*

- *Community feedback*
- *Live interactions for greater inclusivity and transparency*

*v). Challenges outdated assumptions like:*

- *“Investors only trust personal referrals”*
- *“Founders must speak English to succeed”*
- *“Pitching must involve human evaluators”*

*vi). Empowers diverse ideas and makes fundraising accessible to all, fostering a more inclusive startup ecosystem.*

## **2. Following the assumption-busting method:**

- Stakeholders individually brainstorm at least 20 assumptions held about how startups should raise funding—e.g., “pitches must be in English,” “AI can’t accurately evaluate creativity,” “investors only use referrals.”*
- The team then clusters and maps assumptions based on uncertainty and impact, identifying which beliefs to test first.*
- For each high-impact, uncertain assumption, the team formulates a reversal: “What if investors trusted AI more than personal referrals?” or “What if founders pitched in any language and still got noticed?”*
- Experiments—such as sample AI-scored video pitches, translated pitches, live interviews or community feedback pilot—are designed to validate (or disprove) each hypothesis, following the ‘build-measure-learn’ cycle from design thinking frameworks.*

# Spiderweb

Fundamental attitude: WORK INTEGRALLY



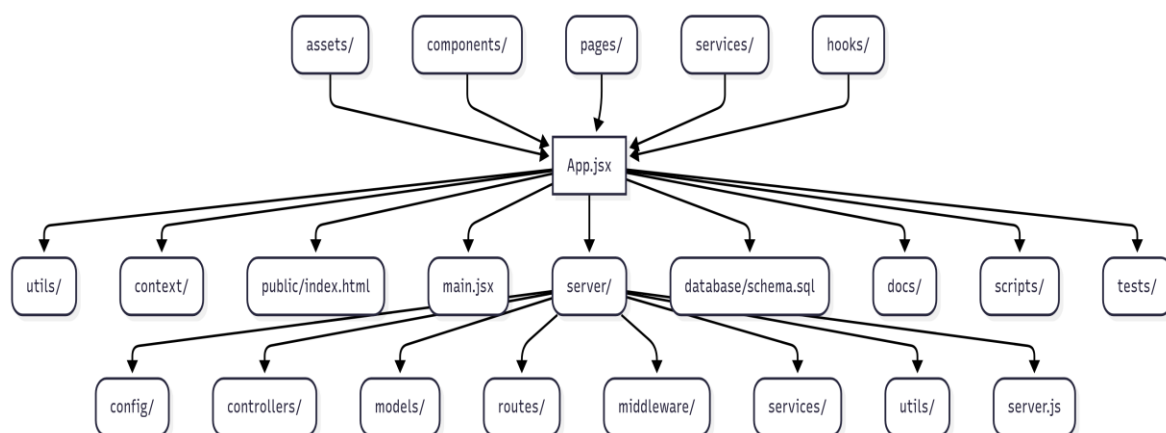
## What is it?

Stakeholders are people or organizations that are interested in, or influence the design process. Think of future users, involved interest groups and managers who use the project to put themselves on the agenda, and so on. A stakeholder can be a positive or negative influence on the design process or they can be positively or negatively influenced by it themselves.

Using a spiderweb you can identify the most important people involved in a problem or subject quickly and show the interconnections.

## How does it work?

- Note down the problem or subject in the middle of the form.
- Around this, write down the five most important stakeholders (first layer).
- Write down five more stakeholders per stakeholder that have influence in one way or another (second layer).
- Try to discover connections: who knows whom and how many more people are involved that can influence your design process?
- Consider which stakeholders you should involve (more) in the design process and how you want to do that.



Spiderweb for our project idea

## • Frontend

1. **assets/** – Stores static files like images, logos, icons, and branding elements.
2. **components/** – Holds reusable UI components (buttons, forms, headers) used across multiple pages.
3. **pages/** – Defines the main route pages (Home, Dashboard, Investor Connect, etc.) displayed in the browser.
4. **services/** – Contains functions responsible for making API calls to the backend (e.g., fetch investors, upload pitch videos).
5. **hooks/** – Custom React hooks for shared logic like authentication handling, form validation, or state management.
6. **App.jsx** – Central React component where main app routing and global state management occur; acts as the hub of the frontend.
7. **utils/** – Utility/helper functions used in components and pages (e.g., date formatting, validation utilities).
8. **context/** – React Context API files for global state management (user sessions, theme settings, etc.).
9. **public/index.html** – Core HTML file where the React app mounts.
10. **main.jsx** – React entry point script where `App.jsx` is rendered into the DOM.

## • Backend

11. **server/** – Backend folder that manages APIs, database connections, and business logic.
12. **config/** – Database configuration, environment settings, middleware configurations.
13. **controllers/** – Functions handling requests and sending responses (e.g., pitch evaluation, investor matching).
14. **models/** – Database models (startup schema, investor schema, pitch schema).
15. **routes/** – API endpoints routing (e.g., /api/pitches, /api/investors).
16. **middleware/** – Code for authentication, authorization, request validation, error handling.
17. **services/** – Backend services like sending emails, notifications, processing AI analysis.
18. **utils/** – Backend-specific helper functions.
19. **server.js** – Main backend entry file initializing Express (or similar) server and handling routing.

- **Database & Support**

20. **database/schema.sql** – SQL file defining tables and relationships for storing startup and investor data.

21. **docs/** – Documentation, API references, concept documents.

22. **scripts/** – Automation or deployment scripts (database seeding, migration scripts, etc.).

23. **tests/** – Automated testing files for backend APIs or frontend components.