

## Learning Journal

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**Course:** SOEN 6841(Software Project Management)

**Journal URL:** <https://github.com/priyankav132/SOEN6841>

**Week 4:** Feb 11th - Feb 17th

### Key Concepts Learned:

This week's learning sessions focused on the initial stages of our Augmented Reality Museum Guide project, particularly on the problem identification, market analysis, and feasibility study. These key concepts lay the foundation for a successful software solution.

#### 1. Problem Identification:

- Clear articulation of the need to enhance the museum experience through technology.
- Significance lies in addressing the limitations of traditional museum guides.

Stakeholder Analysis:

- Identified key stakeholders: museum visitors, staff, and external entities in cultural heritage.
- Brief overview of interests and concerns, ensuring a user-centric approach.

Relevance to Software Solution:

- Explanation of how AR can address the identified problem.
- Initial thoughts on the software solution's scope, considering interactive exhibits and guided tours.

#### 2. Market Analysis:

Target Audience Identification:

- Defined primary target audience: students, families, and tourists.
- Demographic and psychographic characteristics analyzed for tailored user experiences.

Competitor Analysis:

- Identified competitors and analyzed their strengths, weaknesses, opportunities, and threats.
- In-depth assessment to inform differentiation strategy.

Business Values:

- Defined unique selling points: interactive exhibits, personalized tours, and a user-friendly interface.

- Articulated the value proposition, emphasizing enriched learning experiences.

### **3. Feasibility Study:**

#### Technical Feasibility:

- Evaluation of technology requirements for marker-based AR, 3D modeling, and real-time data integration.
- Assessment of feasibility in implementing required technology.

#### Operational Feasibility:

- Analysis of operational impact on existing processes in the museum.
- Identification of potential challenges and benefits.

#### Economic Feasibility:

- Estimation of economic viability, considering resource availability and cost-benefit analysis.
- Preliminary assessment of potential return on investment.

### **Application in Real Projects:**

- The insights gained from these concepts directly influence our project's trajectory.
- Problem identification guides our development focus towards creating an AR solution that solves a tangible issue in the museum experience.
- Market analysis informs our strategy to differentiate our app in a competitive landscape.
- Feasibility study lays the groundwork for a realistic project plan, considering both technical and economic aspects.
- Collaborative efforts were a daily part of our workflow.
- Progress on problem identification was shared through collective brainstorming and refining our understanding of the museum's pain points.
- Market analysis involved dividing tasks among team members, fostering a sense of shared responsibility.
- The feasibility study was approached as a team effort, with each member contributing their expertise to assess technical, operational, and economic aspects.

### **Peer Interactions:**

Interactions with peers were crucial in shaping our understanding of the concepts. Through discussions, we refined our problem statement collectively, ensuring it resonates with various perspectives. Collaborative activities included group brainstorming sessions for market analysis, allowing us to pool our knowledge and insights.

- Actively engaged in discussions, sharing insights on problem articulation and potential software solution scope.
- Collaboratively brainstormed and refined target audience characteristics during market analysis activities.

**Challenges Faced:**

The challenges encountered revolved around aligning our individual research on market analysis and ensuring a cohesive understanding of the problem. Clarification was needed regarding the technical complexities of implementing AR, and this required open communication and collaborative problem-solving.

- Coordination challenges in aligning individual research findings during market analysis.
- Need for clarification on technical aspects, particularly in the feasibility study.

**Personal Development Activities:**

To enhance personal development, I dedicated time to deepening my understanding of AR technology and its application in cultural contexts. This involved self-study on marker-based AR and exploring advanced features in 3D modeling tools.

- Explored online tutorials on marker design to enhance functional and aesthetic aspects.
- Experimented with various 3D modeling tools to gain hands-on experience.

**Goals for the Next Week:**

1. Collaborate with team members to finalize the problem statement based on stakeholder feedback.
2. Conduct in-depth competitor analysis to identify potential areas for innovation.
3. Explore technical aspects of AR implementation through hands-on experimentation.
  - Set specific targets for refining the problem statement based on stakeholder feedback.
  - Define tasks for detailed competitor analysis, focusing on unique features and potential gaps.
  - Plan dedicated time for hands-on experimentation with AR technology and 3D modeling tools.