

Diya Bhavsar

Ary Santhosh Kumar

Karthik Nandakumar

Arjun Saddy

Sahiti Talluri

Sponsor

Dr. Nathalie Lavoine

Asst Prof

Dept of Forest Biomaterials



- Advancing sustainability through research and education
- Believes education is key to improving the planet
- Supports our project as a contribution to sustainability

EDULab Platform

EDULab v2.0 is a continuing project from previous semester and is a digital tool designed to help faculty integrate sustainability concepts into their curriculum by being able to create and share activities.

Activity

Title: Humane Mousetrap Redesign

Purpose: To foster empathy-driven decision-making in students.

Goal: To guide students through the Empathy phase of design thinking in order to redesign a humane mousetrap that respects the diverse values of stakeholders, such as children, adults, and the mouse itself.

Authors & Affiliations: Dr. Nathalie Lavoine

Sustainability Pillars

- Social: 50%
- Environmental: 40%
- Economic: 10%

Entrepreneurial Mindset

- Curiosity: 40%
- Creating Value: 40%
- Connections: 20%

Sustainability Index = 39

Entrepreneurial Mindset 36

Activity Involves (tags): Collaboration, Character, Communication

Class Size: Small to Large

Activity Duration: 1–2 hours

Preferred Audience: All undergraduate levels, faculty development

Activity Description: This activity engages students in redesigning a mousetrap to meet the needs of empathetic stakeholders, such as young children who are emotionally impacted by harm to animals. Students will explore the ethical, emotional, environmental, and practical implications of their design decisions.

Learning Outcomes

- **Technical Learning Outcomes:** Generate questions and formulate problems in a stakeholder-centered context
- **Mindset Learning Outcomes:** Demonstrate empathy toward diverse stakeholders
- **Sustainability Learning Outcomes:** Recognize and balance social, economic, and environmental value tensions

Assessment & Rubric:

Criteria	Excellent (3)	Good (2)	Needs Improvement (1)
Stakeholder identification	All key stakeholders identified with clear values	Most stakeholders identified, values present but limited	Few stakeholders or unclear values
Value tensions	Clearly articulated, balanced tensions	Some tensions identified	Minimal discussion of tensions

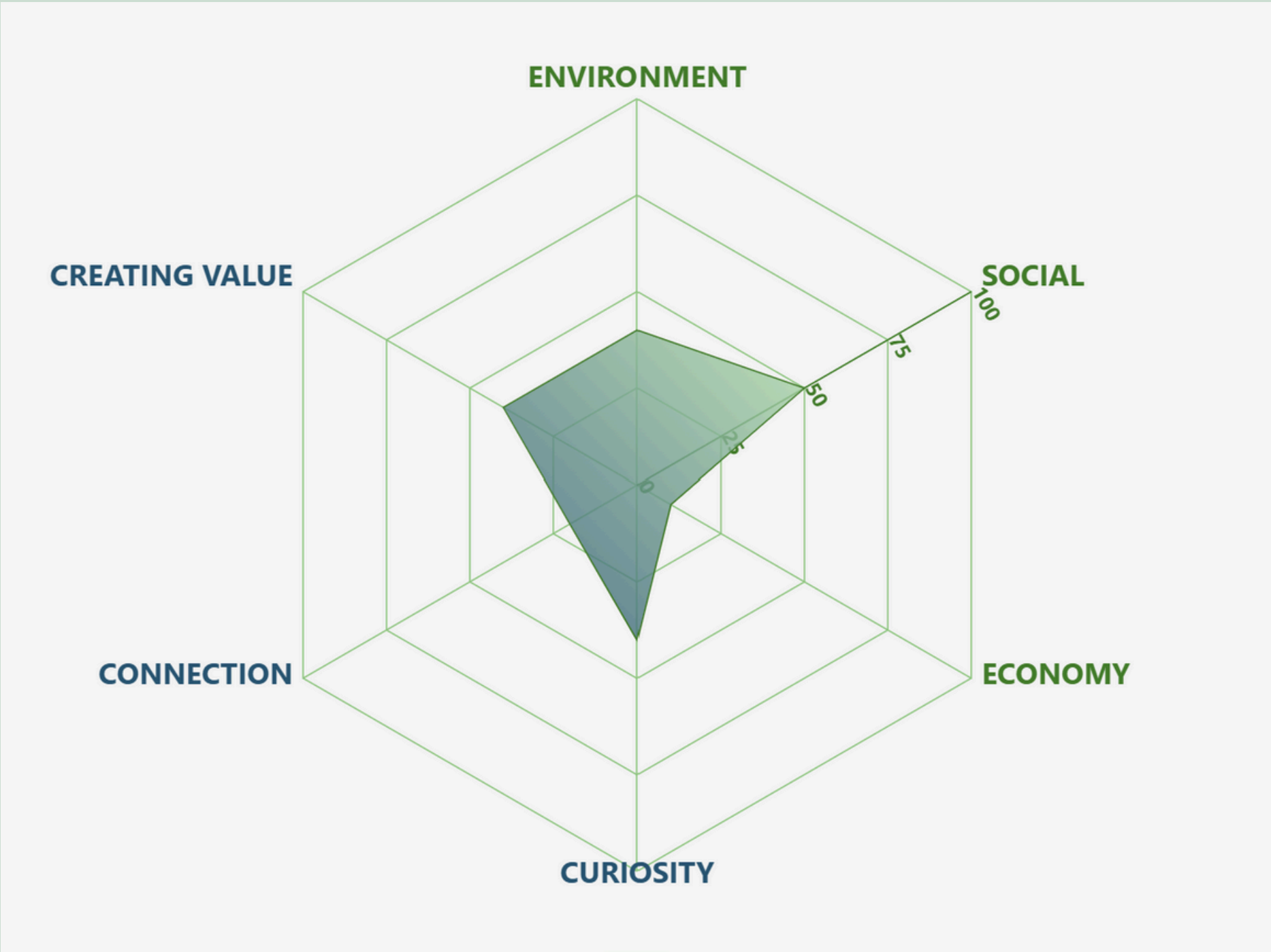
Additional Recommendations:

- Follow up with prototyping or testing session in later class

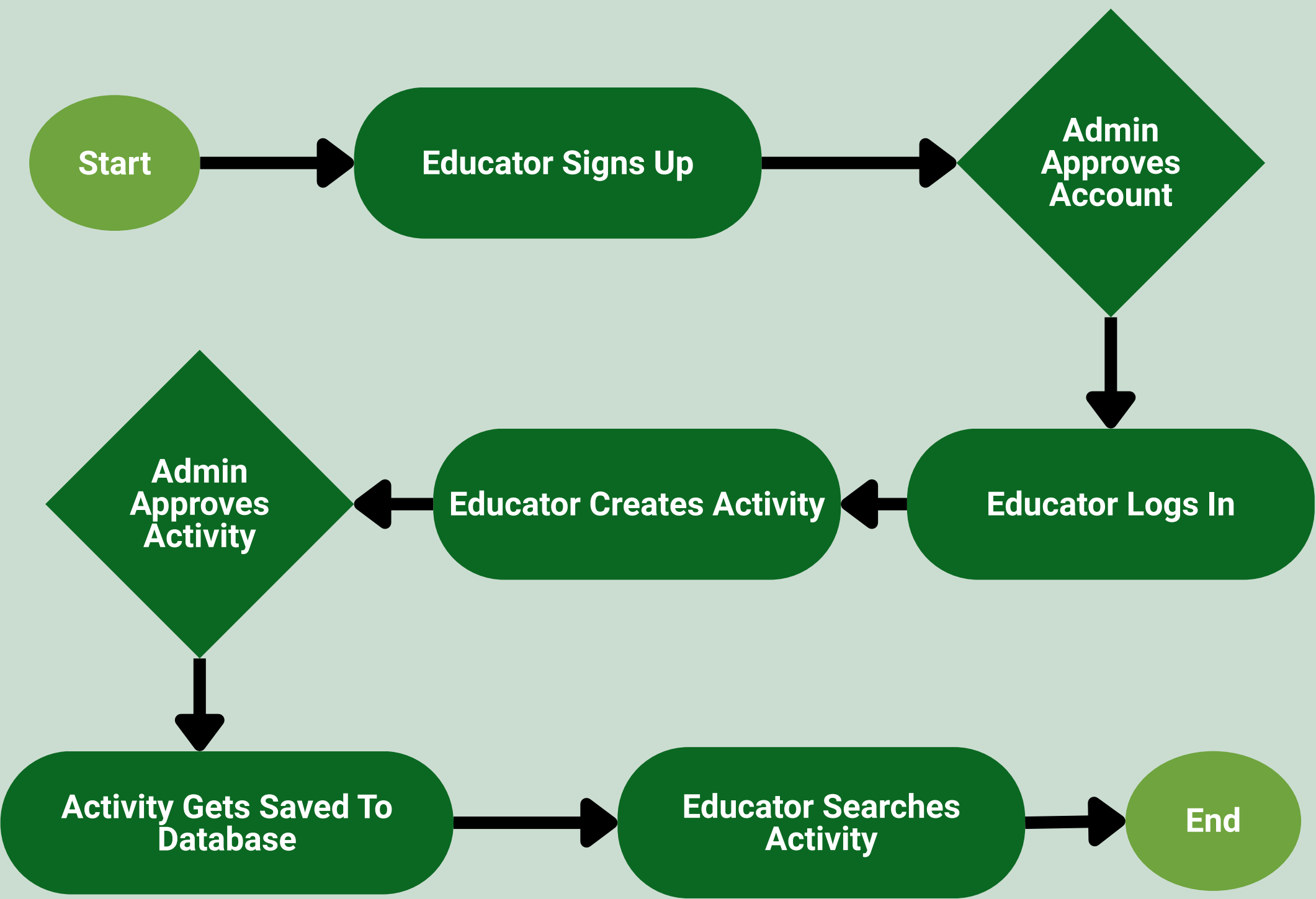
Resources (Attach or Upload):

- Empathy Map Template (PDF)

Sustainability



Educator Activity Flow



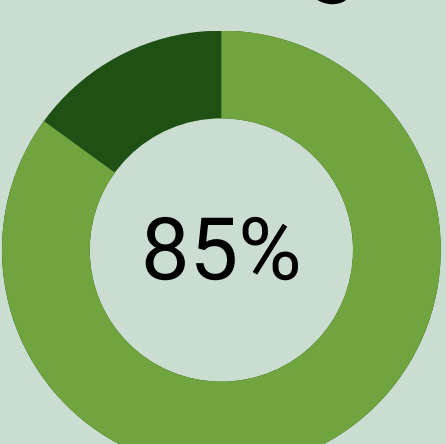
django

Testing

Unit tests



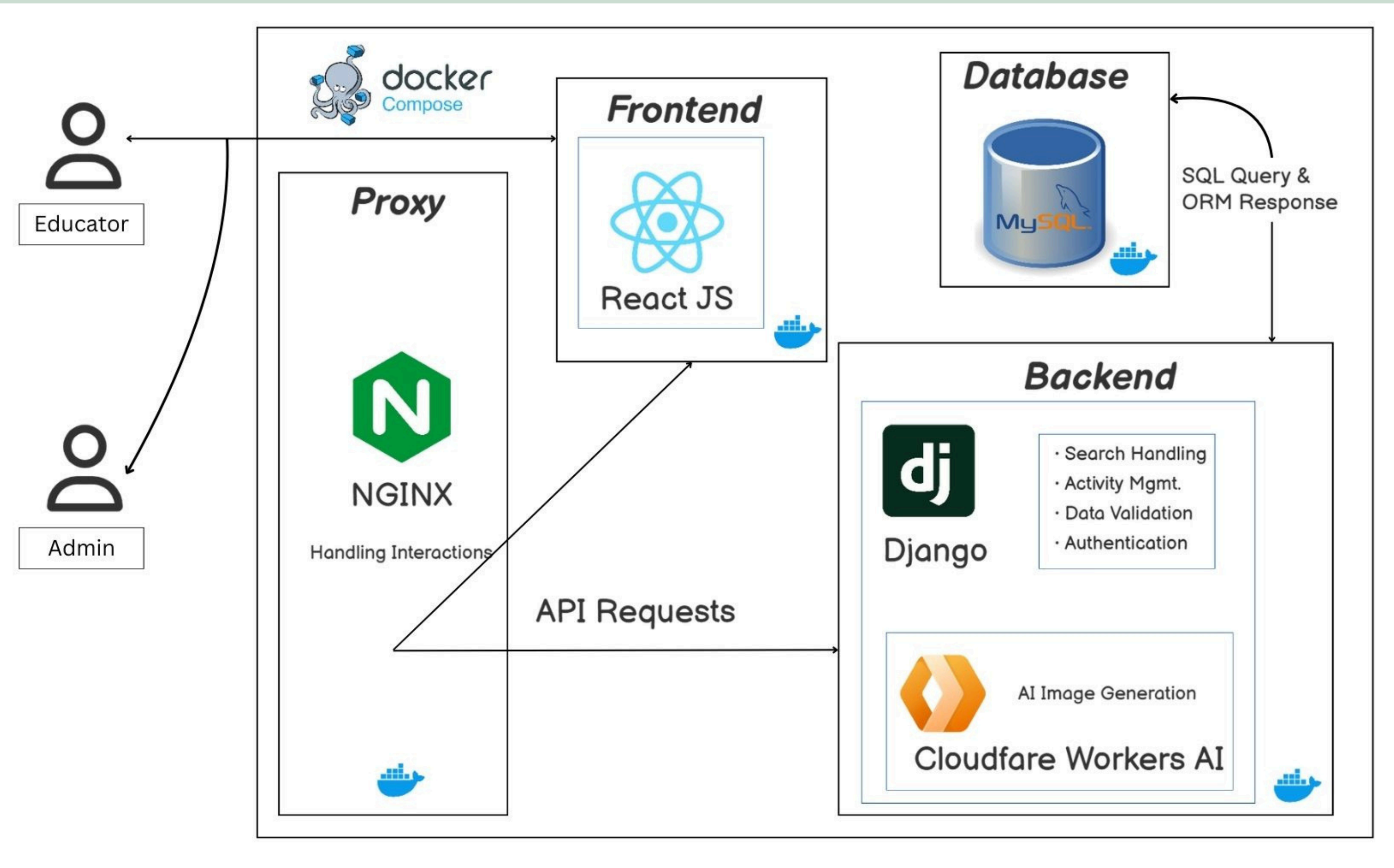
Coverage



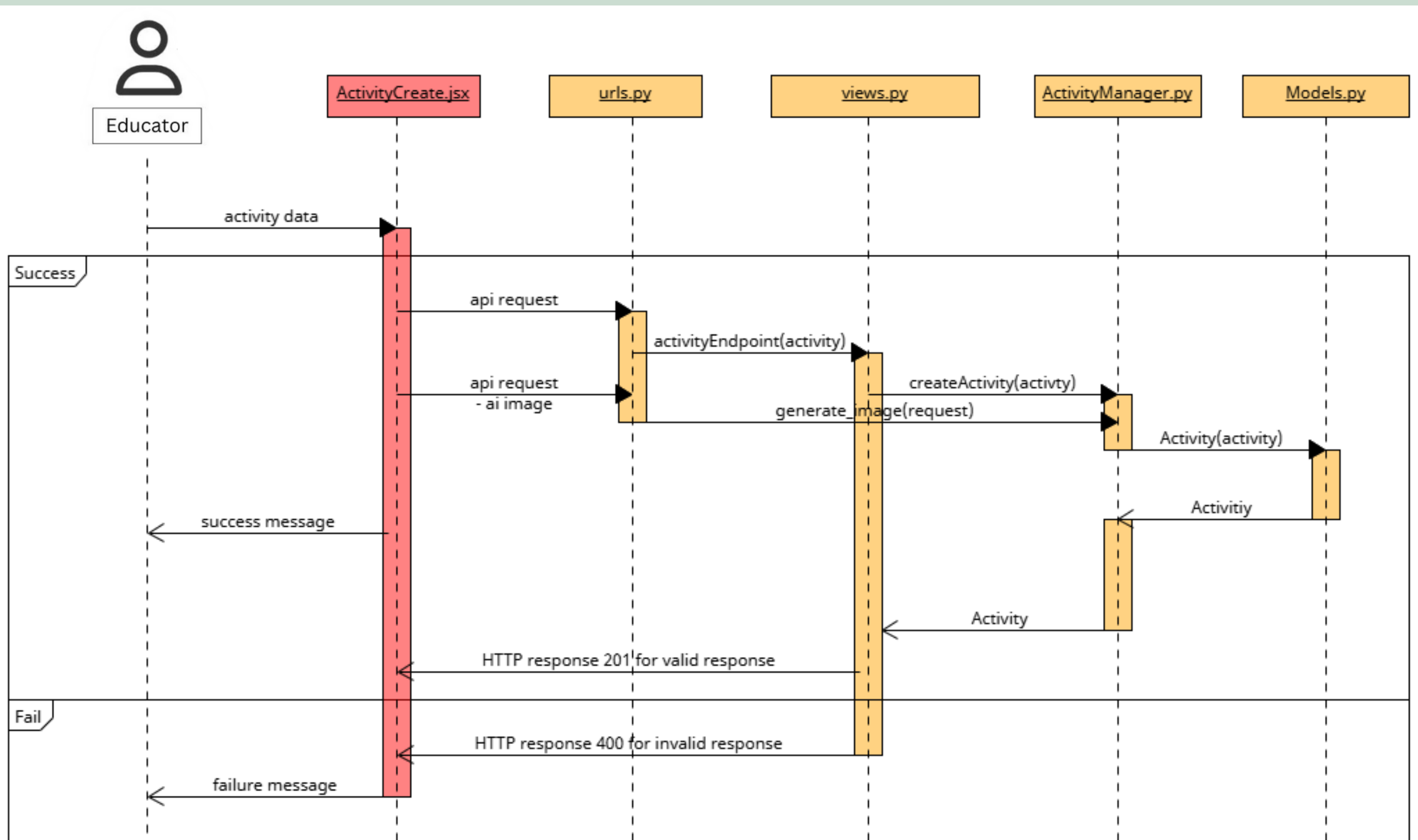
System tests



High-Level Design



AI Image Generation



Requirements

- ✓ Enhance UI to increase user engagement
- ✓ Significantly modify Activity creation
- ✓ Integrate AI image generation
- ✓ Integrate Search Functionality
- ⌚ Make the platform Mobile accessible

Sample AI Image generated : Humane Mousetrap Redesign

