

# COSC2634 BUILDING IT SYSTEM

## Overview

To complete the Building IT System course, students will participate in group formation and need to select a practical project for analysis and implementation. The outcomes will be evaluated through two important documents: **Project Proposal** and **Final Report**. This document guides students on effective methods to perfect these documents, as well as to experience the process of building and developing a real project.

## Project Proposal

A Project Proposal is a detailed plan or blueprint for a project. It is essentially a document that outlines what you want to do, how you plan to do it, why it's important, and what resources (like time, money, and tools) you will need to complete it.

### Guide to Developing a Project Proposal

- **Identify an Area of Interest:** Choose a field like technology, environment, healthcare, education, etc.
- **Find a Problem to Solve:** Look for issues or needs within your chosen field.
- **Think of a Solution:** Develop an idea to address the identified problem.
- **Plan Your Project:** Outline the steps needed to realize your idea, including resources and personnel.
- **Write the Proposal:** Document the problem, your solution, implementation plan, and its significance.

### Project Ideas Across Various Fields

- **Technology**
  - **Smart Recycling Bin:** A waste-sorting bin using image recognition.
  - **Mobile Health Monitoring App:** An app for tracking health metrics.
- **Environment**
  - **Community Garden Initiative:** Creating green spaces and local food production in urban areas.
  - **Solar-Powered Water Purification:** A portable device for clean water using solar power.
- **Education**
  - **Virtual Reality Classroom:** Interactive learning experiences using VR.
  - **Educational Gaming App:** A game for learning math, science, or languages.
- **Healthcare**
  - **Telemedicine Services for Rural Areas:** Internet-based medical consultation for remote locations.
  - **Fitness Program for the Elderly:** Low-impact exercise routines designed for older adults.

- **Agriculture**
  - **Automated Irrigation System:** A system that waters crops based on weather and soil moisture.
  - **Urban Vertical Farming:** A vertical farm in an urban setting for fresh produce.
- **Transportation**
  - **Bicycle Sharing Program:** A community-based bicycle-sharing system.
  - **Electric Vehicle Charging Stations:** Solar-powered charging stations for electric vehicles.
- **Social Issues**
  - **Online Platform for Local Artisans:** A platform for artisans to sell products.
  - **Community Literacy Program:** Free classes to improve literacy in underprivileged areas.

## Guidelines for Writing an Effective Project Proposal

### Example Project: Creating an Online Platform for Local Artists

#### 1. Problem Statement

##### Step 1: Identify the Problem

- **Research:** Look into the challenges local artists face in reaching a wider audience.
- **Clarify the Problem:** "Local artists struggle to gain exposure and sell their art due to limited access to broader markets."

##### Step 2: Explain the Problem

- **Describe the Issue:** "Many talented local artists remain unrecognized because they lack the platform to showcase their work to a larger audience."
- **Support with Facts:** "A survey indicates that 70% of local artists find it hard to reach potential buyers outside their immediate community."

##### Step 3: State the Affected

- **Identify the Stakeholders:** Local artists, art lovers, and the broader community.
- **Explain the Impact:** "This limitation not only restricts artists' economic opportunities but also deprives a wider audience of experiencing diverse local art."

##### Step 4: Address the Need for a Solution

- **Explain the Need:** "Creating a platform to bridge this gap is essential for promoting cultural diversity and supporting the livelihoods of local artists."
- **Set the Stage for Your Solution:** "An online platform dedicated to local artists could dramatically increase their visibility and market reach."

##### Step 5: Keep it Concise and Focused

- **Conciseness:** Condense the problem statement into a couple of precise sentences.
- **Focus on the Core Problem:** Concentrate solely on the issue of market access and visibility for local artists.

#### Points to Highlight

- **Specificity:** The challenge of market access and visibility for local artists.
- **Relevance:** Economic and cultural impact on artists and communities.
- **Evidence:** Reference specific surveys or studies.

## Problems to Avoid

- **Vagueness:** Avoid broad statements like "Artists need help."
- **Overcomplication:** Don't veer into unrelated problems.
- **Assumptions:** Explain the issue clearly, without assuming prior knowledge.
- **Subjectivity:** Stick to objective facts and figures.
- **Solution Bias:** Focus on the problem, not the online platform.

## Example:

The market for original artwork is rapidly expanding globally, yet local artists often find themselves on the periphery, unable to tap into this growing economic opportunity. Despite possessing unique talents and offering diverse cultural perspectives, approximately 70% of local artists are constrained by limited market access, primarily confined to their immediate communities. This restriction not only impedes their financial growth but also limits the commercial potential of the art industry as a whole. Current market structures inadequately support these artists in reaching wider, more lucrative markets. The lack of a specialized, easily accessible online platform that connects local artists directly with national and international art buyers represents a significant missed commercial opportunity. Establishing such a platform not only promises to unlock new revenue streams for local artists but also to diversify and enrich the global art marketplace, meeting the increasing demand for unique and culturally rich art experiences.

## 2. Goals and Objectives

### Step 1: Understand the Difference Between Goals and Objectives

- **Goals:** These are broad, general statements of what you hope to achieve with your project. They are abstract and set the direction.
- **Objectives:** These are specific, concrete actions or targets you plan to achieve as steps toward your goals. They should be measurable and time-bound.

### Step 2: Formulate Your Goals

- Reflect on your project's purpose (in this case, the online platform for local artists).
- Write 1-2 sentences that encapsulate your project's broad aim.
- Example: "To enhance the visibility and market access of local artists through a digital platform" or "To diversify the global art marketplace with unique local artworks."

### Step 3: Develop Your Objectives

- Break down your goals into smaller, actionable steps.
- Make sure these steps are Specific, Measurable, Achievable, Relevant, and Time-bound (SMART).
- Example Objectives:
  - "Develop and launch the online platform within 12 months."
  - "Onboard 100 local artists in the first 6 months."
  - "Attract 500 potential buyers within 3 months of launching."

### Step 4: Highlight Key Points

- **Clarity:** Be clear and specific about what you want to achieve.
- **Relevance:** Objectives should directly relate to your goals.
- **Feasibility:** Ensure that your objectives are realistic and achievable with the resources available.

### Step 5: Avoid Common Pitfalls

- **Vagueness:** Avoid objectives that are too broad or ambiguous.
- **Overambition:** Don't set objectives that are unachievable within your project's scope and resources.
- **Irrelevance:** Ensure each objective contributes directly to achieving the goals.
- **Lack of Measurement:** Avoid objectives that cannot be quantified or assessed.

### Writing Tips

- Use clear, straightforward language.
- Keep the section concise but informative.
- Regularly revisit and adjust your goals and objectives as your project develops.

### Example: Goals and Objectives for the Online Platform for Local Artists Project

#### 1. Goals

The primary goal of our project is to establish a dynamic and inclusive online platform, which will significantly enhance the visibility and market reach of local artists across national and international boundaries. This platform aims to serve as a digital bridge connecting local artists with a broader audience, thus facilitating greater exposure and appreciation for their unique artistic creations. Furthermore, our secondary goal is to cultivate a vibrant and diverse marketplace. This marketplace will not only support the economic growth and sustainability of local artists but also enrich the global art community. By offering a rich tapestry of unique cultural artworks, the platform will promote a deeper understanding and appreciation of diverse artistic expressions. In essence, our project endeavors to empower local artists by providing them with a robust platform to showcase their work while simultaneously offering art lovers access to a treasure trove of undiscovered artistic talent.

#### 2. Objectives

##### Platform Development and Launch:

- Develop a user-friendly and visually appealing online platform for artists and buyers within 12 months.
- Test and launch the platform with full functionality by the end of the first year.

##### Artist Onboarding and Diversity:

- Successfully onboard 100 local artists, ensuring a diverse representation of art forms, within the first 6 months of launch.
- Create artist profiles that highlight their background, artistic style, and portfolio.

##### Market Expansion and User Acquisition:

- Attract an initial user base of 500 potential art buyers and enthusiasts within the first 3 months post-launch.
- Establish strategic marketing partnerships with at least 3 art influencers or bloggers within the first year to expand market reach.

##### Financial Viability and Funding:

- Secure funding or sponsorship to cover operational costs for at least the first two years.
- Implement a revenue model that includes commission on sales or subscription fees by the end of the first year.

##### Community Engagement and Interaction:

- Host a virtual launch event to introduce the platform to a wide audience.
- Organize quarterly online exhibitions or artist showcases to promote interaction and engagement.

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