

Cost Estimation

A cost estimate is an approximation of the cost of a program, project or operation. In this project, most of the work is done using open-source software.

Why Cost Estimation?

- Cost estimations are prepared to different ends throughout the project lifecycle.
- The goal is to provide input for investment decisions.
- Cost estimation is used to determine the size of the required investment to create or modify assets.
- The cost estimate is a deliverable that serves the decision-making process at each phase of the project lifecycle.

Elements of Cost Estimation in Project Management:

There are two types of cost estimation:

1. **Direct Cost:** The direct cost in project management is an explicit cost incurred or spent on a project. Direct costs are easily identifiable in a project because they are directly involved with every level of activity in a project. This includes materials, equipment and other resources.
2. **Indirect Cost:** Indirect costs in project management include all the implicit costs of a project. They are also known as overhead costs or burden costs. They are support costs not directly involved with a project's operations. They include costs such as rent on equipment, office supplies, etc.

The following are some facets of cost estimation that we have taken into consideration:

- **Labour:** The labour cost for the project is the amount of time we have spent working on its development. We divided the entire project equally amongst ourselves devoting 7 – 10 hours a week for the entire duration of the Major Project course work.
- **Materials and equipment:** This is the cost of the resources required for the project from physical tools to software licences. We have made an effort to use open-source tools wherever possible to reduce the software license cost overhead. There are no hardware components involved in the project.
- **Miscellaneous costs:** Other incidental costs include travel expenses, expenses towards draft reports etc.

The table below lists the primary expenses incurred towards the complete project:

Sl. No.	Particulars	Description	Cost
1	Google cloud	For hosting the Docker containers	₹ 5000 p.m
2	Google cloud registry	To save and manage the Docker images	₹ 1000 p.m
3	Game Assets	Various assets required for the game like background music, player skins, weapons etc.	₹ 3000
4	Courses	Courses required for learning the tools and technologies	₹ 3000
5	Miscellaneous	Costs for preparing project reports, stationary requirements, travel, etc	₹ 5000
6	Internet Charges	Cost towards internet	₹ 5000
Total			₹ 22, 000