**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:

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| --- | --- | --- | --- |
| 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 |