# Chapter: 2 Analysis

## 2.1 Introduction to Analysis

2D Game analysis. A systematic examination and evaluation of data or information, by breaking it into its component parts to uncover their interrelationships. Opposite of synthesis. Analysis is the very first process to construct a 2D platform Game.

## 2.2 Analysis Methodology

Analysis methodology is mainly used for gaining the depth knowledge about 2D game and applying data analysis system functionality. There are two type of Analysis Methodology Hard approach and soft approach methodology. Among which I am taking hard approach methodology for the creation of my 2D platform game.

In order to take hard approach to a 2D game there are some steps that is needed to take. Steps are listed below

**Problem definition**: Problem definition is about answering the question “what is the problem or opportunity?” In systems terms we are saying that there exists a system whose output(s) is demonstrating an unwelcome deviation from an expected performance. This is a problem and the solution involves the restoration of the existing, satisfactory performance. An opportunity can be viewed as a chance to improve on the existing performance. The aim, therefore, of the initial step is to identify and describe the problem or opportunity and obtain agreement from any interested parties that this is what will be addressed.

**Analysis of situation**: It is about defining the current “as is” state and performance level. It is at this point the system boundary is defined in order to decide on “what’s in and what’s out”. The analysis of situation may also require the collection of data and information to quantify the current state and performance level. Iteration with the first step often occurs because the analysis of the existing system nearly always means a redefinition or refinement of the problem or opportunity.

**Identification of objectives and constraints**: It is about defining where we would like to be and the constraints that make affect our ability to achieve the new state. It is an important step because it forces stakeholders to clarify what they hope to achieve, but also to understand the external factors and constraints that will restrict our change choices and therefore the level of change.

**Routes to objectives** is about exploring the different ways of achieving the defined objectives. This it is a Divergent-Convergent Thinking activity with the divergent phase concerned with generating as many ideas as possible then to converge on a realistic number of definite possibilities to take forward. It is important to note that at this point we are looking for “solution’ in outline with sufficient detail to be able to remove the “weaker” ones to leave the definite possibilities.

**Measures of performance** is about defining measurable means of assessing the efficacy of any definite possibility. It’s really asking and answering the question “how will we know if the change has occurred?”

**Develop Options** is about developing the definite possibilities to the position where they could be implemented. This involves doing sufficient work on each option for technical and other details to be defined, and for costs and benefits to be assessed, while at the same time minimizing the time and resources devoted to the task.

**Evaluation of options** is about evaluating how well each option will work. The objective of this step is to determine whether:

• The option will meet the operational objectives

• It is technically feasible

• It is organizationally feasible

• It will meet the financial objectives.

## 2.3 Feasibility Study

|  |  |  |  |
| --- | --- | --- | --- |
| S.NO | Feasibility Study | What does this study finds out? | How it is related to my project. |
| 1 | Schedule Feasibility | Is there a sufficient or limited time for Project? | WBS, Gantt Chart, Mile Stone. |
| 2 | Economic Feasibility/Cost Benefits | Is my project Cheaper or low of cost? |  |
| 3 | Technical/Resources Feasibility | Is there Every Technical and sufficient Resources? |  |
| 4 | Marketing Feasibility | Is there any market value |  |
| 5 | Cultural Feasibility | Does my project effect on a cultural aspect. |  |
| 6 | Operational Feasibility |  |  |
| 7 | Ethical feasibility |  |  |
| 8 | Comprehensive Feasibility |  |  |

## 2.4 Requirement Analysis

Requirement analysis is very necessary for the proper development of 2D game

### 2.4.1 Function Requirements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.N | Functional Requirement | Data | Rational | Description | Dependencies |
| FR001 | Menu Bar |  |  |  |  |
| FR002 |  |  |  |  |  |
| FR003 |  |  |  |  |  |
| FR004 |  |  |  |  |  |
| FR005 |  |  |  |  |  |
| FR006 |  |  |  |  |  |
| FR007 |  |  |  |  |  |
| FR008 |  |  |  |  |  |
| FR009 |  |  |  |  |  |
| FR010 |  |  |  |  |  |

### 2.4.2 Non-Function Requirements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S.N | Non-Functional Requirements | Description | Rational | Dependencies |
| NFR01 |  |  |  |  |
| NFR02 |  |  |  |  |
| NFR03 |  |  |  |  |
| NFR04 |  |  |  |  |
| NFR05 |  |  |  |  |
| NFR06 |  |  |  |  |
| NFR07 |  |  |  |  |
| NFR08 |  |  |  |  |
| NFR09 |  |  |  |  |
| NFR10 |  |  |  |  |

### 2.4.3 Moscow prioritization SRS

|  |  |  |  |
| --- | --- | --- | --- |
| ID | Title | MOSCOW | Description |
| FR001 |  |  |  |
| FR002 |  |  |  |
| FR003 |  |  |  |
| FR004 |  |  |  |
| FR005 |  |  |  |
| FR006 |  |  |  |
| FR007 |  |  |  |

## 2.5 Use-case Diagram

## 2.6 NLA and Initial Diagram