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Chapter 1: Overview

1.1 Purpose

Now a day's game is very popular among young and even old people especially mobile and window games are most popular and by making mobile and window game company can easily make profit because more then 4.68 billion people of world population use mobile and more then 17.5 million people use window.

The main objective of our project is to make fun to play by interacting with game environment .some other objectives are.

1. To convert our concept/ideas in the game
2. To provide entertainment to the user
3. To enhance our designing skill by developing game
4. To target youth

1.2 Audience

Any game developer or game development company make target audience by analyzing data like age, income, location. There are many benefits of playing game

1. Video games can improve manual dexterity
2. Video games can increase your brain’s gray matter
3. Gamers may have better social skills.
4. Games can teach you to be a better problem solver.
5. Video games can improve your vision

1.3 Project scope

For every indie game developer or for any game development company it is quite easy to make money either by showing ads, by selling game or by in app purchase. Scopes of our game are as following:

1. Unity is a cross platform engine it mean we can easily run Unity in any laptop or computer
2. Unity can be used to develop game for cross platform or we can convert same game (project) for various platform including Window, Mobile, WebGl, IOS.
3. This project is based on C# so it also support cross platform.

4. We can run our game on any laptop or computer with integrated graphic card ,2Gb ram and Dual core processor

Chapter 2: Existing System

2.1 Subway Surfers:

Subway Surfers is a classic endless runner game. You play as Jake, who surfs the subways and tries to escape from the grumpy Inspector and his dog. You'll need to dodge trains, trams, obstacles, and more to go as far as you can in this endless running game. Collect coins to unlock power-ups and special gear to help you go further every time in Subway Surfers. Furthermore, coins can be used to unlock different characters and boards. With your keys you can customize the characters and upgrade your hover boards with special powers.

2.2 Temple Run

Temple Run is a 3D endless running video game developed and published by Imangi Studios. The player controls an explorer who has obtained an ancient relic and runs from demonic monkey-like creatures chasing him. The game was initially released for iOS devices on August 4, 2011, and later ported to Android systems and Windows Phone 8.

The game was a commercial success with positive reviews from critics. The success of the game led to a sequel Temple Run 2. Collaborations with Disney/Pixar to create Temple Run: Brave and Temple Run: Oz, and a third spin-off in development by Scopely titled, Temple Run: Treasure Hunters as a match-three video game. Temple Run also received activity books and a board game, with Warner Bros. Studios talking with Imangi Studios of a possible film adaptation. The success of the game also inspired multiple games that copy Temple Run's gameplay and branding.

Chapter 3: Dependencies

3.1 System Dependency

Our project is complete depend on unity and visual studio for those software our system must be with grater processor, graphic card and ram but minimum system requirement is:

1. Dual core processor
2. At list 8Gb ram
3. At list 2 Gb GPU either integrated or dedicated

Better the system better the development process and better the product quality and there is less chance of mistakes and less bugs.

3.2 Staffing Dependency

For the better quality and performance of the product team member must be open-minded, understandable, and familiar to each other. To make deliverable product with in a time with in a budget staff must have following characteristic.

1. Experience on similar type of project
2. Open minded
3. Creative
4. Team communication
5. Familiar with team members
6. Knowledge About game
7. Knowledge about Unity
8. knowledge about C#
9. knowledge of Photoshop and 3d modeling

3.3 System Constraints

For better development experience we need better performance system but we may have to face following system constraints.

1. lack of GPU
2. Lack of RAM
3. May our system does not compactable with newer version of unity and visual studio
4. We may not able to build our project for other devices like mac , ios because of unavailability of those system

Chapter 4: Requirement

4.1 Requirement

Functional Requirements: These are the requirements that the end user specifically demands as basic facilities that the system should offer. All these functionalities need to be necessarily incorporated into the system as a part of the contract. These are represented or stated in the form of input to be given to the system, the operation performed and the output expected. They are basically the requirements stated by the user which one can see directly in the final product, unlike the non-functional requirements.

1. Calculations
2. Technical details
3. Data manipulation
4. Data processing
5. Other specific functionality

Non-functional requirements: These are basically the quality constraints that the system must satisfy according to the project contract. The priority or extent to which these factors are implemented varies from one project to other. They are also called non-behavioral requirements. Other. They are also called non-behavioral requirements. They basically deal with issues like:

1. Efficiency
2. Effectiveness
3. Extensibility
4. Fault tolerance
5. Interoperability
6. Maintainability
7. Portability
8. Reliability
9. Scalability

4.2 Requirement Identification

Requirements define the needs of the project to provide best of its utility and benefits. If we aren't clear or analysis is not done properly, it might lead to failure of the project no matter how good the concept and design. To add more structure to our game development workflow selecting the right software development methodology is very challenging for us because it depends on team size, goals, and other factors. At the end of day we decide to use prototype methodology and we will be using for development process because of the following reason.

1. We exactly don't know full specification of our project
2. Prototype model provide a flexibility to specification
3. It provide previous version of game through prototype before developing a software
4. Just through a prototype we can get feedback on it
5. It is quite helpful for feasibility test

4.2.1 Feasibility Study

After requirement and exerting system analysis we start to analysis about whether we have enough economical, technical and time or not for start project and give project to final touch at the end of the day

4.2.2 Time feasibility

We have more than 2 month to complete project and our project not goanna very big so he have enough time to complete convert our idea into game.

Gantt chart for time estimation.

Time / Task	T1	T2	T3	T4	T5	T6	T7	T8	T9
Prototype of player movement & Environment									
Obstacle prototyping									
Game restart and pause system									
Level wining system									
Level selection									
Main menu									
Replacement of prototype with actual system									
Polishing and testing									

4.2.3 Economic Feasibility

We already have enough hardware so we don’t need to buy any more hardware components and many game Engine are free. But may we need to buy some game assets for project to buy game assets we have enough money hence we can start project.

4.3 Security Requirement

In any software product security is essential to protect user private data like credit card /play store payment system but in our case this project include nothing related to user data nether any account(gmail,facebook) nor any payment system and in this game there is no game currency hence implementing security for our project is waste of budget and time

Chapter 5 Expected Outcome

5.1 Expected output

Before the end of the semester or the end of the project everyone will be able to play this game on Window, Linux and also may be for Android and web browser as well.

Some other expectation:

1. Interesting to play
2. No bugs
3. User satisfaction
4. More than enough level to play

Conclusion

Overall the management of job and the user will be done properly for the betterment of users. Anyone can play this game for fun. They will also be given a proper feedback about game play.

References

1. Wikipedia (Wales 2001)
2. Concept (Sunny 2021)