FPS GAME

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Abstract : The gaming industry is becoming one of the largest consumer product markets in the entire world. In 2017 alone it generated $108 billion dollars in revenue. The Indian gaming industry has generated $360 million dollars in revenue in 2017. There are currently approximately 1,517,534 steam users in India. This is only on the PC platform. But if you look at the games available you will find out that the no of games made in India is very low. India has the world's largest youth population and many of them are gamers. While many of them play games very few of them want to create them. If every 1 out of 10 gamers started to create games, then India would have a large no. of game development studios enough to rival market leaders such as the US and Europe in terms of both quality and quantity. With a growing consumer base and e-commerce solutions in place, the Indian game developer ecosystem will have ample opportunity to innovate and provide compelling content with social and cultural context, which is key in engaging the Indian consumer. With experience in outsourcing, QA testing and developing products combined with availability of creative talent, advanced technology and low-cost, Indian markets provide the best opportunity for collaboration and development work. The aim is to create a single player First Person Shooter with basic genre mechanics and an intuitive AI. Our goal is to demonstrate that with enough practice and experimentation anyone can be able to develop their own game. The model can further be expanded in scale to be advertised as a complete game. If the no. of game developers rise then the investments in the gaming industry will rise providing a boost to the economy. This might also create job opportunities for the Indian graduate crowd.

I. PROBLEM IDENTIFICATION

1.1 Existing System:

Games are made in development studios located in the US, Europe and Japan. Indian studios are mainly used for outsourcing jobs and for making mobile games. The game development scenario in India is rather less compared to countries like USA, Japan etc. There needs to be a huge change to the game development scenario in India in order for it to compete with other countries which are investing in the heavily rich and popular industry.

1.2 Drawbacks of Existing System:

The main drawback for the existing scenario is the huge waste of talent and potential which can be used to promote an industry which is booming at the moment. Gaming companies from other nations make huge profits and India is one of the highest contributors since there are very less First Person Shooter games being developed in the country.Also,there is no substantial benefit as of now to the Indian economy from the development of such games.

II. ARCHITECTURE DIAGRAM
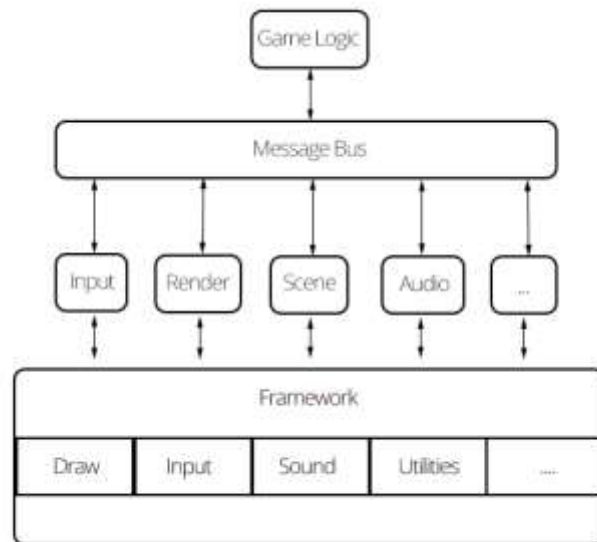
III. MODULES

3.1 Data Module

Player data and Enemy data such as health, ammo and win status need to be collected, stored and altered when necessary. This module will handle the task.

3.2 Game Logic Module

The collected data will be analysed using the logic to determine the current status of the session. This involves calculating if the game is won or lost by the user, the amount of enemies remaining etc.

3.3 Input Module

This handles processing inputs such as movements and button clicks and assigning them in-game functions.
Sound Module:
The module is responsible for producing sounds in the game. The operations done by the module will include

- Choosing what sound gets played
- The intensity and loudness of the sound
- The direction in which it gets projected
- The timing of the sound based on character interactions

IV. TECHNICAL REQUIREMENTS

4.1 Software Requirements
- Unreal Engine: It is the game engine which will power the game. It provides a base and framework for the game to function
- Visual Studio 2017: It is an IDE for C++ coding. Unreal uses C++ for programming its games

4.2 Hardware Requirements
- Intel i5 3rd generation or above processor
- 4GB DDR3 RAM
- 2gb DirectX compliant Graphics Card

IV. CONCLUSION

Thus, a First-Person-Shooter game has been successfully developed keeping in mind the standards and guidelines set by other foreign companies which develop top games. The usage of software such as Visual Studio and Unreal Engine has been instrumental in the development of a First-Person-Shooter game which meets the standard requirements set by the top gaming companies around the world. It is observed that First-Person-Shooter game development can serve as a platform for India to make a name for itself in the gaming industry and there is hope that the following project serves as an inspiration

V. ACKNOWLEDGMENT

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