MID-TERM REPORT

OF

**EXPLORE NEPAL: GAME**

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INTRODUCTION

The game, is a dynamic, quiz based edutainment program that enables the users to learn and explore simultaneously.

The users, most of whom are speculated to be children from age groups(6-10), shall be allowed to input their names in a GUI tool box.

Related questions from their text books and general aptitude questions shall be asked.

**The game is analogous to a virtual tour of the country by the user. As the user enhances his position in the game by answering questions correctly, s/he shall be taken virtually to a tour of the entire country hence raising the antcipations along with enhancing the knowledge of national concerns.**

- The entire country shall virtually be divided into the Five Development Regions.

- The user shall virtually be taken to an Eastern region of the country to start off the journey, where a series of questions shall be asked.

- On successfully completing those series of questions, s/he shall be taken chronologically to the western parts. The game ending upon the user successfully being able to reach the extreme west of the country.

- CHECKPOINTS within each Development Region are intended to give the user entertainment and education hand in hand.

- Each CHECKPOINT shall embed a clip representing the region- a naturally or culturally recognized place and it's information so as to raise the issues of national diversity

- The user shall win if he gets all answers right but shall loose even if he fails to answer more than one question in a Development Region.

Upon ending a session, the user's parameters shall be recorded and displayed.

**Literature Review**

Ever Since the Government has shifted its focus on enhancing the Educational sector, the concept of EDUTAINMENT has gained some popularity.

(**While Learning Simultaneously becomes fun**, The Himalayan Times,2012-03-01)

Nepalese developers too have become community aware in the past three to four years or so, thanks to foreign projects in Nepal. Organizations like **HELP NEPAL**, and **OLE NEPAL** have been recruiting and encouraging developers to help the children in remote areas with no access to computing technology .

**Kaun Banega Crorepati(KBC)**,a flash-based quiz game named after the show, gained a great popularity in the past with its simple yet powerful interface.

Similarly, there's also been an approach to promoting nationality through games and softwares in foreign coutnries (Uniting America, Raise the British Flag-animation games)

A comparison between the closely related game KBC and Explore Nepal is presented below:

|  |  |
| --- | --- |
| **Kaun Banega Crorepati** | **Explore Nepal** |
| 1. Questions mostly based on Indian history and geographical details | 1. Questions relevant to Nepal, and general aptitude questions |
| 2. No Randomization of options | 2**.** Randomization of Options |
| 3.Simlar Gameplay | 3. Dynamic Game play with varying backgrounds |
| 4. Non-Graphical(closely console) answer selection | 4. Interactive answer selection via character's keyboard movement |
| 5. No options for registering scores | 5. Options for registering scores on an external file |
| 6. Continous Gameplay | 6. Gameplay with checkpoints after every five questions. |
| 7. Major Objective-QUIZ | 7. Major Objective- Explore Nepal , descriptive information about each Development Region. |
| 8. A single level game | 8. Game with five different levels |

Discussion

**Technical Information:**

* **Operating System tested on:**

- Ubuntu (13.10 and 14.04)

- Windows 7

* **Programming Language Chosen:**

- Python(2.7)

* **Graphical Toolkit Used**

- Pygame

* **IDE Chosen:**

- IDLE (for Python 2.7)

* **Other Softwares used:**
  + - Adobe Photoshop(For Photo Editing)
    - Notepad and Gedit(For handling external text file)

Program Architecture

**MAIN MENU**

Modules:

**1) Play game Module(One)**

- Takes the username from main menu as argument.

- Returns the username and his/her score

- Handles all the Gameplay

(**COMPLETED)**

**2) Checkpoints Module(Five)**

- Is called by the Play Game Module

- Displays relevant information of each Development Region

-Returns nothing and takes the control back to Play Game Module

(TWO **COMPLETED**)

**3) File Handling Module(One)**

**-**Reads questions and options from external file

-Returns them

- Writes user's name and score to external file

(**COMPLETED)**

**Tasks Accomplished**

* **Main menu Design :**

The main menu interface of the game was completed. The main menu consists of three options:

* + New Game
  + View Scores
  + Quit
* **Basic Game play Design:**

The basic Gameplay Design was completed wherein the user has the option to select the four **randomly** placed options via the keyboard based movement of a cartoon-based figure on the game.

* **File Handling Modules:**

The File Handling Module was successfully completed where the contents required for the program(including the questions and the options) were successfully extracted from the external file and returned via related functions.

* **Two checkpoints:**

The game having five checkpoints on total, two namely of the Eastern Development Region and Far Western Development Region were completed.

**Tasks to be Accomplished**

* **Finalizing Game play Design:**

A better use of graphics to display scores and name is to added ,background music for game play and finishing touch to the movements of the character are to be given

* **Three Checkpoints:**

Three Checkpoints namely of Central Development Region, Western Development Region and Far Western Development Region are to be completed

* **In-between animations:**

Animations for Congratulating the user, Displaying Score and game completion and tutorials are to be created.

* **Finishing Touch:**

Finishing touch to the animations, pictures, sounds and technicality is to be achieved.

Problems Encountered

**1. Sprite-sheet:**

A sprite sheet was required for the animation of the character so used. However, since it was decided to stick to structured programming for the first project rather than the object oriented one, classes weren't created. Hence, the group came up with a different logic to animate our character which made the program code long.

**2. Input Box:**

It was hazardous to create the input box class. Fortunately, it was found that pygame had it's own inputbox program on its documentation. However, it's use forced us to stick to certain constraints ,for instance the Capitalization of the first letter of the name could not be achieved.

**3. Game Play:**

In order to make the gameplay as interactice as possible, it was decided that we use keyboard movements. However, noting the characters position and taking into account the correct option turned out to be tremendously tiresome.

**4. File Handling:**

It took some great logic to randomize the questions and answers for the module, especially the necessity for a unique random number while extracting the contents from the external file.