**SUMMARY**

This program is a primarily a quiz which will be useful for teachers in middle and high schools to assess their students’ knowledge of their US states and capitals. Students will attempt to answer 2 categories of questions. The number of questions will be specified by the teacher. Students will attempt to match a state to its capital.

There will also be a section where the teacher of the class can manage some operations. For example, at the end of the entire quiz exercise, the teacher can retrieve the scores of the students. The list of US states and capitals will be provided in a file.

**ANALYSIS**

When the user opens the program, he/she enters the “**Home**” section

**Home**

Display “Hi! Welcome to EfoTech! Teacher or Student?”

If the user is a teacher, he enters the “**Teacher’s Login**” section

If the user is a student, he/she enters the “**Quiz**” section

**Teacher’s Login**

Print “Please enter your name and password to continue”

If the teacher successfully logs in, he/she enters the “**Teacher’s Lounge**” section. If he/she cannot, print “Sorry, you are not authorized to manage the quiz”

**Teacher’s Lounge**

A list of options will be displayed

-**Difficulty**

-**Prizes**

-**Rankings**

**Difficulty**

Here, the teacher will specify how many questions will be in each category in the quiz.

**Prizes**

Here the teacher can enter the:

* Cutoff mark
* Prize(s) for students who score above the cutoff mark

The teacher can also opt not to issue any prize or cutoff mark.

**Rankings**

The teacher has the option to view the students’ scores ranked based on:

* Order of attempt
* Scores from highest to lowest

However, before the rankings can be displayed, the teacher has to confirm that all students have attempted the quiz. If not all the students have, print “Sorry, the rankings can only be accessed when all students have completed the quiz”

**Quiz**

Note: If the teacher has not specified the number of questions to be attempted in each category, the quiz will not run.

Print “Hi there! Welcome to Efosa’s hot seat! Take a deep breath and then when you’re ready, press ‘Start Quiz’”. The student can then begin the quiz.

The quiz is administered the form of multiple-choice questions and is in 2 stages. Users will be quizzed on a specified number of states and capitals, picked at random.

**Stage A**: In each question, a state will be displayed along with 4 different state capitals as options. It will contain 3 wrong answers and 1 correct answer. The user will have to type his/her answer and then move on to the next question.

After Stage A, the user will proceed to Stage B

**Stage B**: In each question, a state capital will be displayed along with 4 different states as options. It will contain 3 wrong answers and 1 correct answer. The user will also have to type his/her answer and then move on to the next question.

At the end the user will submit and his/her scores in each category and total score will be displayed. If the cutoff mark and prize(s) are specified, all students whose total score meets the cutoff will be notified of their prize. The user will then be prompted to go to the “Home” section, for a new student to start his/her own quiz.