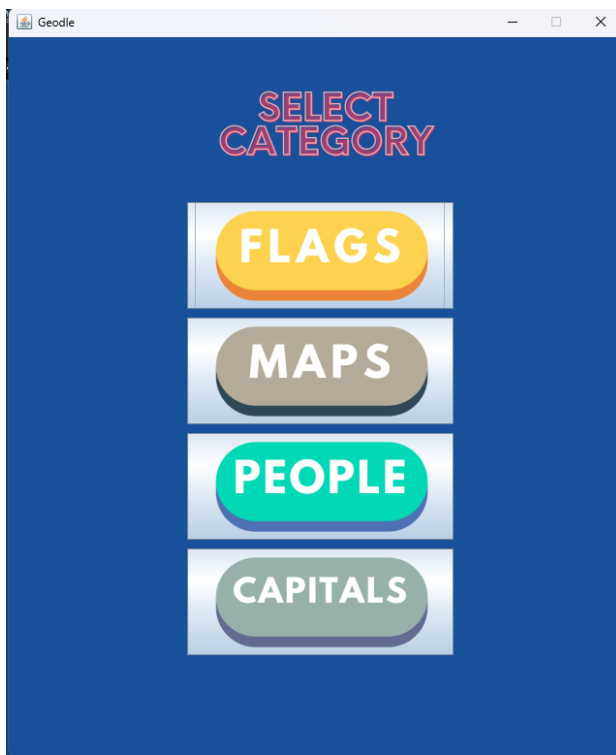**Figure 1. Home Page**

Figure 2. Select Category

- There are three options on the homepage, "Standard Mode," "Mixed Mode," and "Exit." If the user selects the first one, the user will be prompted for the category [see Figure 2] that he/she wants to play. The second option, on the other hand, will have a randomized category in each round. Finally, once the third option is selected, the program will close.
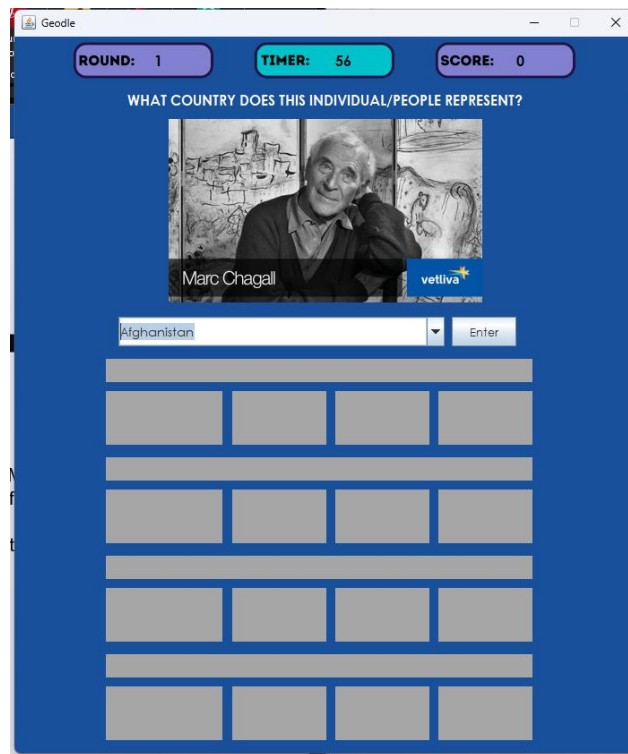

Figure 3. The Game

- If the mode is "Standard," the user will play a total of ten rounds. Otherwise, it will be fifteen. The three boxes on the top dictate the status of user's progress. The "round" indicates the current round, the "timer" indicates the number of seconds left, and the "score" displays the user's overall score. Note that the user only has 60 seconds to guess which country the image is associated with. Once the timer runs out, the round will end and will show the correct answer [see Figure 4].
- The ComboBox below the image is the list of countries the user is going to select. The user needs to use the "Enter Button" to confirm the choice.
- The grey boxes underneath represent the guesses. There will be only four allowed guesses in each round. The round will come to an end if all of the guesses are incorrect or if the answer is correct [see Figures 8 and 9]. The said boxes would turn green if the information associated with the selected country is valid while red if it is invalid [see Figure 6].
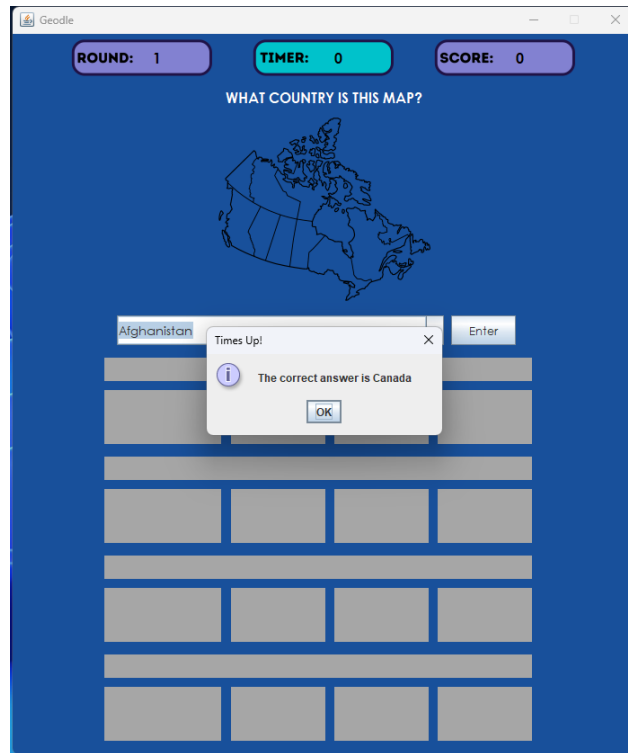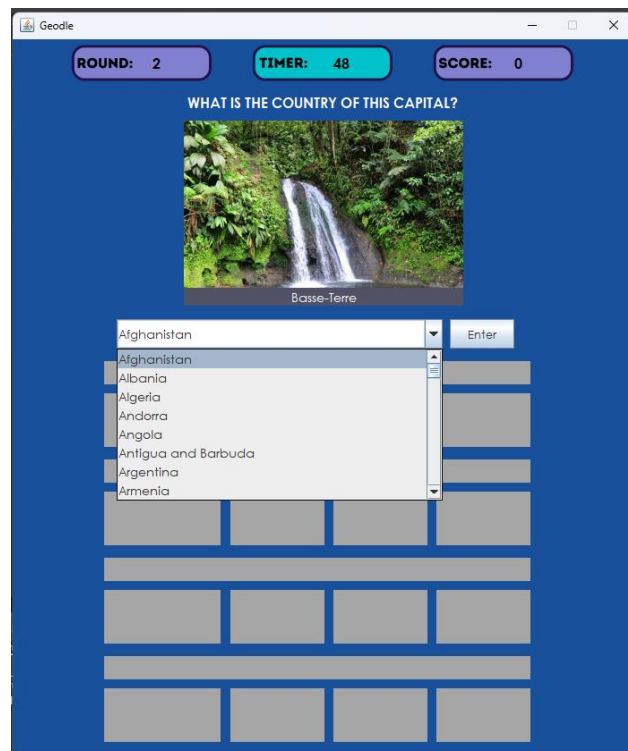
Figure 4. Timer Runs Out
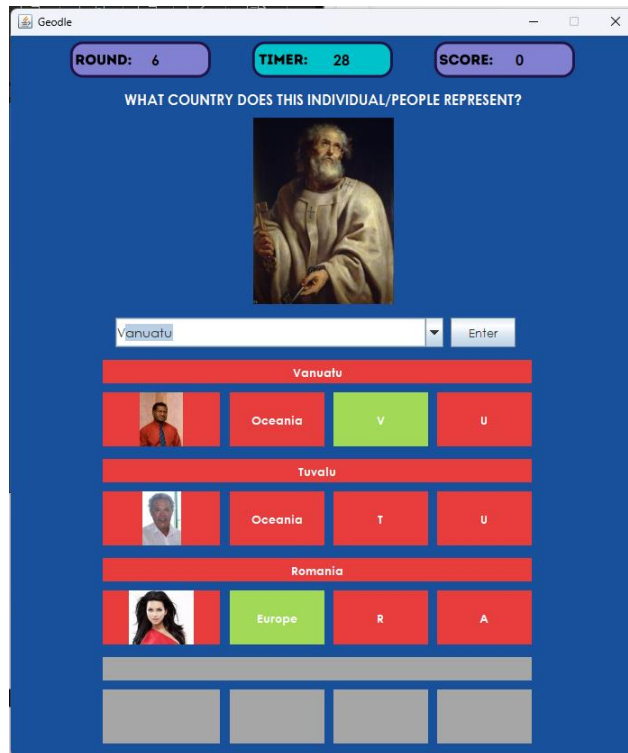

Figure 5. Selecting Countries

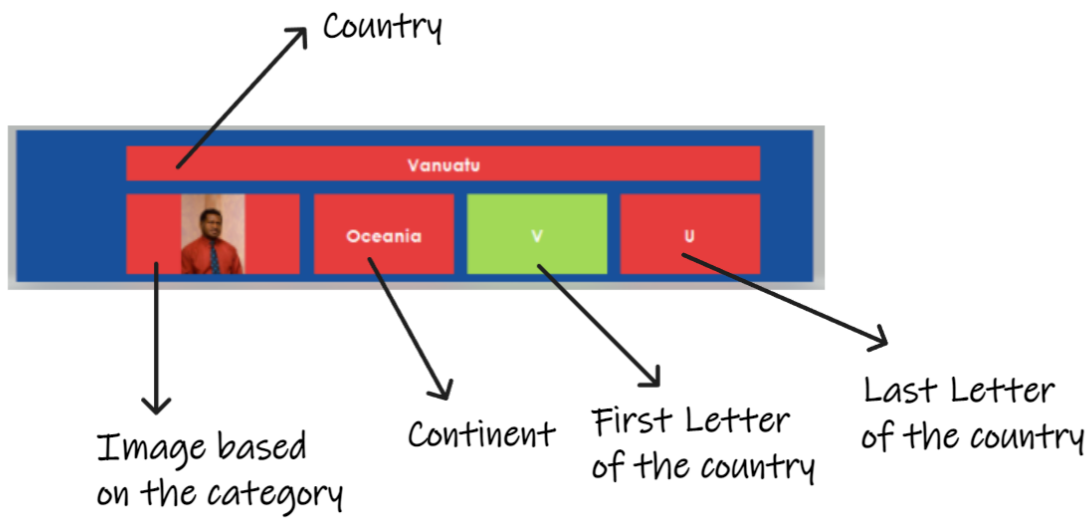**Figure 6. Colors of Guesses**

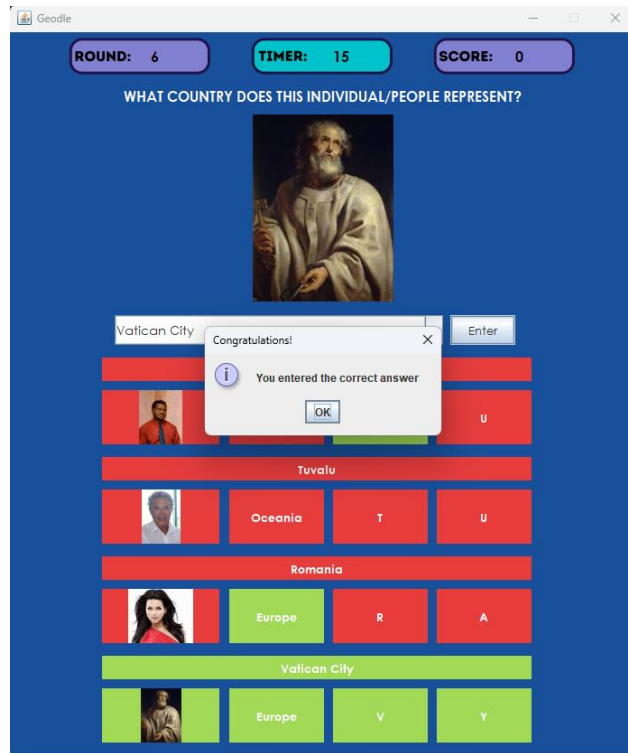**Figure 7. Anatomy of the Guess**

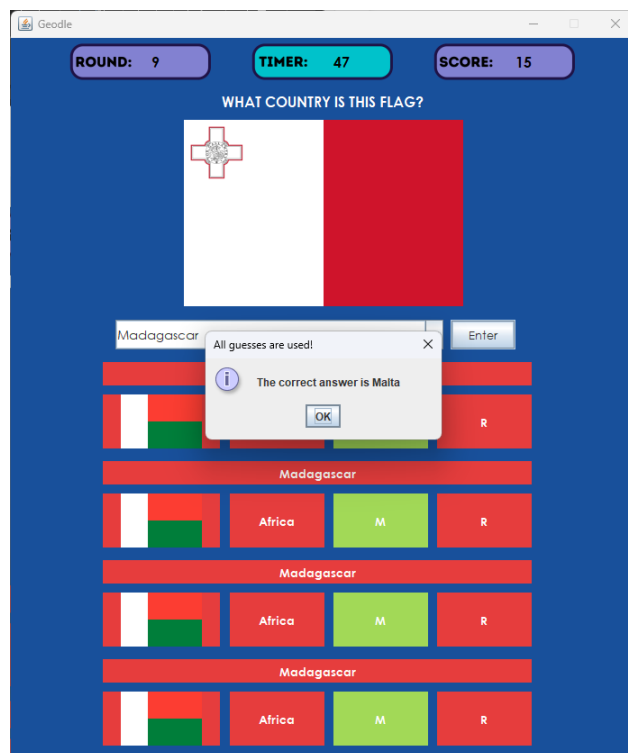**Figure 8. User Selected the Correct Answer**

Figure 9. User Used All Guesses

Scoring

- Every second left multiplied by the number of tries left is the score of the round. For example.

  Scenario 1:
  Seconds Left = 55
  Number of Tries Left = 4
  Score = 220

  Scenario 2:
  Seconds Left = 15
  Number of Tries Left = 1
  Score = 15

  Scenario 3:
  Seconds Left = 0
  Number of Tries Left = 2
  Score = 0

  Scenario 4:
  Seconds Left = 55
  Number of Tries Left = 0
  Score = 0

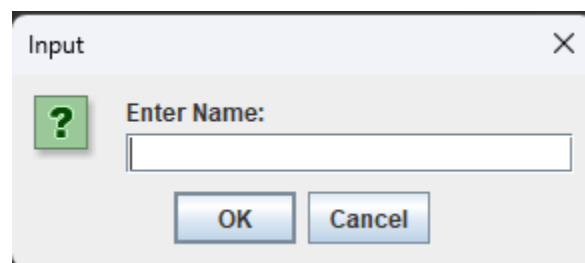- The total score will increment the current score up to the last round.

Figure 9. Prompt User for Name

- After all the rounds have been played, the system will ask the user for a name. If the user "closed," or entered the "cancel" button, the user's name would be "Guest." Otherwise, it would be the input.

Figure 10. User's Score and Leaderboards

- Then, it would show the user's score and the top 10 scorers based on the category the user selected. The "home" button redirects the user to the home page.

Testing

Figure 1. Overall Coverage

Figure 2. Test Coverage