

**ISIT307 S1, 2026**  
**Assignment #1**  
**Due: 09/02/2026 8pm**  
**Marks: 25 marks (25%)**

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**The purpose of this assignment is to create an interactive website by using web forms, manipulating strings and arrays, validating/handling user input and using text files (for storing and retrieving information).**

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### **Aims**

In this assignment, you will need to develop a dynamic website for kids **“The world around us”**. The website will offer to the kids to answer questions and learn interesting facts.

At the beginning of the game, the user should insert the nick-name and choose a quiz from 2 sections: “Animals”, and “Environment”. The user is starting the game with overall 0 points. One game can include multiple quizzes from the same or different section.

After the user finishes the quiz, the result with the number of correct and incorrect questions, gathered points from the current quiz ( $[\text{number of correct questions}] * 2 - [\text{number of incorrect questions}] * 1$ ), as well as the user’s overall points in the current game (from all quizzes) should be displayed.

The user should be offered to start a new quiz on the same or another topic. Also, the user should have the option to see the overall scores of all players in the game (Leaderboard - cumulative points of all games per user), or to “Exit”.

The ‘Leaderboard’ should give an option to the user to order the players by their nicknames or by the greatest score. When the “Exit” option is chosen, the nickname and overall points of the user should be displayed. The option to start a new game (by entering the nickname) should be given as well.

For the “Animals” topic, the questions should include description of an animal. The user should insert/enter the name of the animal in a text field. If the result is incorrect, or the field is left empty it should be assumed that the user does not know the answer, so that question should be counted as incorrect.

For the “Environment” topic, the questions should include interesting fact from the natural environment. The user should answer whether the fact is true or false.

For every topic should be at least 8 questions of which 4, by random choice, should be displayed to the user in every quiz (quiz is generated by displaying 4 randomly chosen questions for the given topic).

The user can navigate thru topics and have unlimited quizzes in the same game.

The text files should be used for storing the data needed for the website (questions, points per user/ Leaderboard).

## **Requirements**

### *1. Design Requirements*

The website should have interfaces for:

- Entering the nickname and menu with offered options (Quiz topics, Leaderboard, Exit);
- Quiz with 4 questions;
- Displaying the result from the quiz and overall points in the current game;
- 'Leaderboard' with the option to display the list of players (user-points) by their nicknames or by the greatest score;
- Displaying the nickname of the user and overall points (of all - previous and current - games) when the game is completed (for the "Exit" option).

### *2. Functionalities*

- The user should be able to insert the nickname (at the beginning of the game);
- The user should be able to choose different quiz topics (at the beginning and after every quiz);
- The user
  - o can have unlimited quizzes in one game,
  - o can see the result of the current quiz and his/her overall points in the current game after every quiz,
  - o can see the overall points (of all previous and current games) at the end of the attempt,
  - o can see the 'Leaderboard';
- The user should have an option to "Exit" and start a new game from the beginning.

### *3. Other Expectations*

- The website should have good interfaces and navigation through the given options.