Use Case Description

* Name: Answer a question
* Description: Player (user) attempts to move into a room in the maze containing a question and is prompted to answer one of three types of question. If the player answers the question correctly, he/she may enter the room; otherwise, the room is walled off and the player moves back to his/her most recently visited position.
* Level: Primary task
* Primary Actor: Player
* Preconditions:
  1. The player is active in the game.
  2. The maze is populated with open cells, question cells, and wall cells.
  3. Maze traversal is implemented, i.e. the player can choose to move north, east, south, or west into open cells and cells containing questions, but not cells that are walls.
  4. A database with valid questions of each type exists.
* Success End Condition: Player successfully enters the room, i.e. the room is marked as ‘visited’ within the maze.
* Failure End Condition: The room is walled off and the player is moved back to the most recently visited position.
* Trigger: Player lands on a cell (enters a room) in the maze that is coded as one of the three types of questions: true/false, multiple choice, or short answer.
* Main Success Scenario:
  1. Player tries to enter a room in the maze that contains a question.
  2. Player is presented with a trivia question either true/false, multiple choice, or short answer.
  3. Player is prompted to answer the question.
  4. Player’s answer is verified with the correct/acceptable answer for that question.
  5. Player successfully moves into the room and the cell is marked as visited so that the player may move in and out of that room freely in the future.
* Extensions:

3a. Player provides an unacceptable answer choice for that particular type question.

3a1. An error message is printed indicating an invalid response and the player is re- prompted (go back to step 2) until the player provides an acceptable response.

5a. Player answers the question incorrectly.

5a1. The room is walled off and the player is moved back to the most recently visited position.

5a2. Check if there still exists a path to the target position of the maze.

5a3. If an open path exists, go to step 1, else the current game is ended and the player is notified.