## Use case: Play game

- 1. The user passes from 0 to 3 arguments to the main program. They include a number of tokimons, fockimons, and cheat mode. Precondition: the user passes a valid type of data (int). If the precondition is not met, the program exits.
- 2. The program will create a  $10 \times 10$  board and populate it with random cells that store information about the type of creature in a cell.
- 3. The user then will be presented with a welcome and he would be displayed with a prompt to enter the initial position.
- 4. The user will type the position in format (Uppercase Letter + Number) that corresponds to the cell on the board. Postcondition: user enters a valid letter and number that correspond to some cell on the board.
- 5. The player will be displayed with the number of collected tokimons, spells remaining, and already collected tokimons on the board. He also will be presented with a board where '@' are players' current position, '\$' is tokimon cell, 'X' is fokimon cell, '~' is not yet visited cell, ' ' is a visited cell.
- 6. The user is prompted with Play options:
  - a. Move Player
  - b. Use a Spell
- 7.a. The user selected to move *Player*. The player can be moved up, down, left, right. Postcondition: The user does not go out of bounds of the game *Board*. User come backs to Step 5.
- 7.b. The user selected to use *Spell*. The user prompted with 3 spells options. The user then chooses out of the available spells. Postcondition: after selection, the spell should be removed from the list, i.e. the same spell cannot be used twice. Users come backs to Step 5.
- 8. The game continues until the user finds the first fokimon or collects all tokimons from the board. User wins and prompted with a congratulations message. The full board of all cells is revealed.
- 9. Program exits.

## Variations:

- 1.1. User provide > 3 # of arguments to the system. System exits
- 1.2. User passes invalid data for tokimons or fokimons. System exits
- 1.3. User gives number for tokimons but not for the fokimons. The default value of 5 set for fokimons.
- 1.4. User gives number for fokimons but not for the tokimons. The default value of 10 set for tokimons.

- 1.5. User does not include cheat mode. All creatures now are not visible initially
- 4.1 User enters lowercase letter. Program converts it to uppercase automatically. The game continues
- 4.2 User enters invalid input for position. User will be prompted with an example. User enters values until makes it right
- 5.1 Cheat mode is on. No cells with value unvisited: '~'. All positions of creatures are visible to the user
- 7.a.1 User tries to go out of bounds of the board. Prompted to change the input. User enters values until makes it right
- 7.b.1 User tries to use spell at number that does not exist. Prompted to change the input. User enters values until makes it right
- 7.b.1 User chooses spell option with no spells available. Prompted that there is no spells left. User returned to step 5.
- 8.1 User loses the game. User is presented with message that he lost. The full board of all cells is revealed.