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Requirement Analysis

Case:

Client	ICESI University
User	Player
Functional Requirements	<ul style="list-style-type: none"> - R1: Add user - R2: Frog actions - R3: Ask for help
Problem Context	<p><i>The company Discre has commissioned you to develop "Froggish", a unique and challenging graphical game. The game consists of three levels: the first with 10 leaves and lotus flowers, the second with 15, and the last with 25. Each level features different seasons. Also, it has an energy mechanism where jumping on a leaf consumes energy and landing on a lotus flower replenishes it. Players must guide the frog through these levels, making strategic decisions to get him back home. "Froggish" combines strategic skills in an engaging and entertaining environment.</i></p>

Identifier and Name	R1: Add user		
Summary	<i>The software allows to add one user per game, the user will only need the username and the name you want to give to the frog</i>		
Input	Input name	Data type	Valid condition
	username	String	<i>Maximum 20 characters</i>
	frogName	String	<i>Maximum 10 characters</i>
Result or Postcondition	The system verifies that the user is added correctly		
	The system verifies that the user added the frog name correctly		
Output	Output name	Data type	Format
	message	String	<i>The user name was added correctly</i>

	message	String	<i>Frog name added correctly</i>
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Identifier and Name	R2: Frog actions		
Summary	<i>The software allows the user to perform actions with the mouse, so that the frog jumps to a leaf or a lotus flower.</i>		
Input	Input name	Data type	Valid condition
	Click	MouseEvent	<i>Only valid for the mouse, no keystrokes are allowed.</i>
Result or Postcondition	<p>The frog changes vertex and energy is subtracted if it is a leaf, if it is a lotus flower, energy is added.</p> <p>The frog does not change its vertex and energy is subtracted if it is a leaf, in case it is a lotus flower, energy is added.</p>		
Output	Output name	Data type	Format
	Message	String	<p><i>If it is a leaf "You are challenged 1 amount of energy".</i></p> <p><i>If it is a lotus flower "It has had 1 amount of energy added to it".</i></p>

Identifier and Name	R3: Ask for help		
Summary	<i>The software provides users with the ability to request assistance when needed. It uses Dijkstra's algorithm based on the graph structure to help users make sound decisions in choosing their next vertex. However, it is important to note that the helps available are limited.</i>		
Input	Input name	Data type	Valid condition
	help	Button	<i>available support is limited.</i>
Result or Postcondition	The system checks the shortest path correctly		

	The system verifies the availability of aids, if you have aids available, the system displays the following message "you have n aids available" otherwise the system displays "You have no more aids available".		
Output	Output name	Data type	Format
	message	String	"you have n aids available"
	message	String	"You have no more aids available"