

Text-based Game Structure

HTML



<p id="output">

display results of
action:

- map location
- item seen
- inventory
- game message

<input id="input">

input text box: user
enters action

<button>

<audio id="mySound">

<source src="mySound.ogg" type="audio/ogg">

<source src="mySound.mp3" type="audio/mp3">

</audio>

Text-based Game Structure

JavaScript

declarations

Arrays

map[] --	Describes game locations. <i>String</i>
images[] --	Image file names. <i>String</i>
blockedPathMessages[] --	Warnings displayed when boundary checking. <i>String</i>
helpMessages[] --	Hints. <i>String</i>
sounds[] --	ID selectors for sound effect files. <i>String</i>
items[] --	Items that are available at the map locations. <i>String</i>
itemLocations[] --	Map location corresponding one-to-one with elements in items[] array. <i>Number</i>
backpack[] --	Inventory items. <i>String</i>
actionsIKnow[] --	Game user input vocabulary
itemsIKnow[] --	All items in the game (as opposed to the items[] array which just contains items at locations). <i>String</i>

String objects

action --	Current action extracted from text box, e.g., north, help, use
item --	Current item extracted from text box, e.g., flute, stone, sword

Element objects

e.g, var image = document.querySelector("img");

image, output, input, button

Text-based Game Structure

JavaScript

listeners

button

mousedown event -- display button down mode
mouseup event-- display button up (default) mode
click event -- display button up (default) mode
playGame() (main game function)

input

keydown event -- if ENTER key pressed, then call playGame()

call **render()** -- Initialize game display.

function playGame() -- calculates new map location, etc.

parse text input and extract **action**
parse text input and extract **item**

respond to **action**:

north|south|west|east: update location and gameMessage
help: update gameMessage
take: call **takeItem()**
drop: call **dropItem()**
use: call **useItem()**

call **render()** -- update game display

function takeItem()

if item is at this location, move it to your inventory

function dropItem()

if **item** is in your inventory, move it to this location (**items** array)

Text-based Game Structure

JavaScript

```
function useItem( )
```

if **item** is in your inventory, then respond to **item**:

flute: if at a specific location A, add **sword** to this location (**items** array)

sword: if at a specific location B, update **gameMessage** with end of game description
set end of game flag

stone: if at a specific location C, add **flute** to this location (**items** array)

```
function render( ) -- updates game screen every time a game turn  
or event occurs
```

play sound for current location

display the following in the output string:

current game location

item at this location

inventory (**backpack** contents)

gameMessage, e.g., "You drop the stone in the well".

clear **input** text box