

# Adventure Island

The project this semester is an adventure game.

The Premise: "You wake up on an island with no memory of how you got there. You need to overcome a series of obstacles in order to be able to board a pirate ship and sail it to civilization."

In order to perform tasks and move about the ship, the player must give commands of one or two words, normally a verb followed by a noun, such as "take knife" or "go north", or simply "north" or "n".

Instructions should be given at the start of the game if the player requests them. The first time a room or area is encountered, a long description is given. If the player goes there again later a short description will be given. The long description will be repeated if the player types "look". The items the player is carrying are listed if the player types "inventory". Visible items in the room that can be taken will be listed after the room description. The player should be able to drop an item at any location and come back to retrieve it later. It should be possible to save (or restore) the game at any time.

The following puzzles must be included:

1. There is a tree with bananas that the player needs a knife to cut. The knife is on a table in the captain's quarters. If the player comes back later, the bananas should have regrown.
2. There is a gorilla next to the ship's wheel that does not allow anyone to approach. It must be given the bananas before it will leave.
3. There is a prisoner in the brig below deck that must be released in order to help man the ship and sail away.
4. There is a parrot in the galley that repeats everything the player says in Pig Latin. It only stops when the player says "hello", "polly", or "cracker", either alone or as part of a larger sentence, at which point it tells the player of a secret compartment in the captain's quarters containing the keys to the prisoner's cell.
5. There are hostile natives that appear outside the ship after the player boards that will not allow anyone off the ship. They are only pacified by treasure found in a trunk in the cargo hold.

Once the prisoner is freed and the player gains access to the ship's wheel, the player can sail the ship to freedom.

The following words must be in the game's vocabulary:

## **Verbs:**

take  
give  
look  
eat  
cut  
climb  
drop  
u, d, n, e, w, s  
up, down, north, east, west, south.  
unlock  
sail  
open  
quit

## **nouns:**

gorilla  
knife  
bananas  
treasure  
door  
cell  
trunk  
parrot  
ship  
stem  
keys  
room  
ladder  
tree  
trapdoor

## **other:**

polly  
hello  
cracker

# Room Descriptions

Intro to the game:

You have just awakened on a strange island with a terrible headache. You can't remember anything about yourself or where you are.

Island:

The island is forested with banana trees. Most of the bananas are green, but one tree to your north might have ripe bananas. There are ominous drums in the background. There is a ship to your south with a gangplank to the shore.

The banana tree:

There is a large banana tree here. (There is one bunch of ripe bananas on the tree within reach.)

The top deck of ship:

The top deck has a wheel at the east end of the ship, and there is a ladder down to the lower deck. The captain's quarters are to the west.

The wheel on the top deck:

If the gorilla is there:

There is a large gorilla by the ship's wheel. This gorilla is hostile. You can't touch the wheel.

If the gorilla is not there:

You are at the wheel.

The bottom deck:

The deck below is dimly lit, and smells musty. You can make out three doors. One is to the north, one is to the south, and one is a trapdoor below you.

Galley:

This is the galley. It is mostly empty, but in a shadowy corner you see a parrot sitting on a perch.

Brig:

In this room there is a prisoner in a locked cell. He says, "Jack (or the name of the player), I'm so glad you're alive. The captain locked me up for cheating at cards, which is the only reason the islanders didn't capture me. They killed everyone else. Now I guess we're the only two left, which makes you captain since you were first mate. Go find the keys to unlock this door, and we can sail out of here."

Captain's quarters:

These are the captain's quarters. There is a bed and a table in this room. (There is a knife on the table. There are keys if the parrot has told the player about them.)

The cargo hold:

You've entered the cargo hold. There are barrels, a pile of tools, and a trunk. (Treasure is in the trunk.)

## Due dates

- |   |      |
|---|------|
| 1. Main program with stub functions:      | 3-14 |
| 2. Navigation:                            | 3-21 |
| 3. Pig latin function, two word commands: | 4-4  |
| 4. Complete minimum game:                 | 4-25 |
| 5. All added features:                    | 5-2  |

The above due dates will be strictly kept! If your group misses a due date, the letter grade for the project will be lowered by one complete letter grade for each due date you miss.

The complete, basic program, working as described, is worth a grade of "C". To receive a better grade, additional work must be done. Additional work may include:

a) Making the program "crash proof": What does your program do if the user enters random characters as input? What if the user tries to quit the game as the first command?

b) Making the commands more robust: There might be several synonyms that would make a command work, like take, get, or lift for picking up an object. There might be other things you can do with an object besides its intended use.

c) Additional rooms, areas, and puzzles: **At least one original puzzle is required for a grade of "A"**. Are there ghosts on the ship? What's in the crow's nest? What can you see from there? Do you need anything else in order to sail the ship? What about extra rooms just for filling out the story, or describing the existing rooms more fully?

d) Additional features: What about points or prizes? Can two people play? Can you make the rooms more elaborate? Can you make it funny or mysterious? Do you need to eat? Do you need light to see?

## Pig Latin

Pig Latin is a method of "encoding" English so that it is more difficult to understand. Children who become good at Pig Latin are able to speak to each other without other children or adults understanding what they are saying. To encode a word into Pig Latin, simply move any consonants from the beginning to the end of the word and add "ay". If the word does not begin with a consonant then simply append "way". If the word does not contain any vowels, append "way". For example, "boat" becomes "oatbay", "strength" becomes "engthstray", "eat" becomes "eatway", and "psst" becomes "psstway".

Ifway ouyay ancay eadray isthay, ouyay understandway Igpay Atinlay!