

Group 7 - Oregon Trail

Luke Noramczyk, Quinn Roemer, Nickolas Lohn, Nabil Furmoli, Ahmad Furmoli, Cody Clark





Oregon Trail(GamePlay)

- Player takes on the role of a group of early American Settlers.
- Purchased items derives variables to be manipulated within the game.
- Scenarios determine the fate of the settlers.
- BATTLE against ECX determine outcome.

Main Variables:

- Food
- Oxen
- Quality of Wagon
- People (constant)



Welcome!



Option #1: Higher quality wagon. Health is: 400, Cost is: 400
Option #2: Lower quality wagon. Health is: 300, Cost is: 200

OK

Funds are equal ...



200

OK

Welcome!



This is the game of OREGON TRAIL
To start the journey you have a 1000 gold coins to spend on provisions

Enter a 1 to buy a Wagon
Enter a 2 to buy food
Enter a 3 to buy Oxen
Enter a 0 to Quit Menu / START THE JOURNEY!

OK

Coding Responsibilities

Input validation for the code menu.

Create the codes framework.

Implement a procedure that can generate random numbers.

Input Validation for the Menu

Welcome!



You have already bought an item in that category.

OK

Prevents the user from buying multiple items from one category.

Welcome!



You do not have enough money to purchase that.

OK

Prevents the user from buying items that are too expensive.

Welcome!

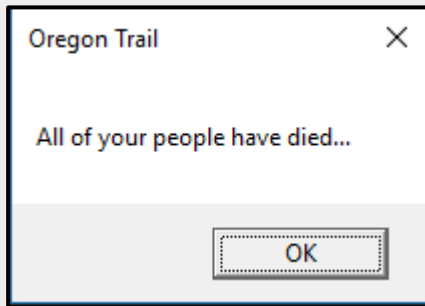


You forgot to purchase something!

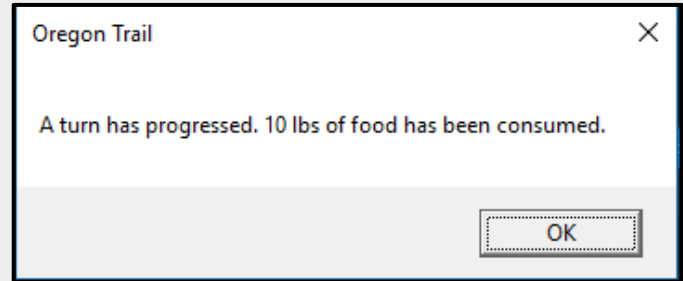
OK

Prevents the user from leaving the menu before buying at least one of everything.

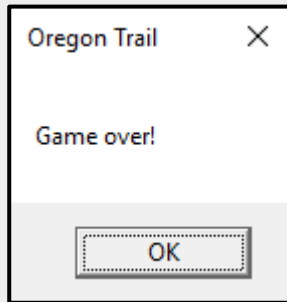
Coding the Framework



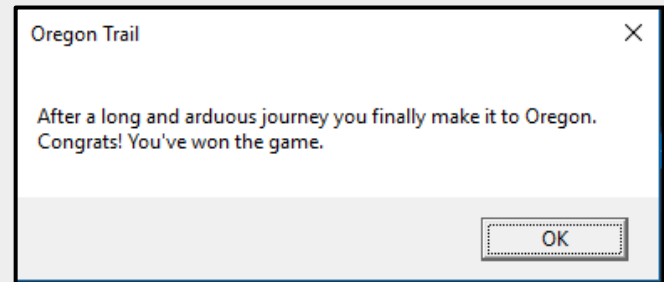
Informs the user that all of their people have died.



Informs the user that a turn has progressed.



Informs the user that they lost the game.



Informs the user that they survived the trip to Oregon and won the game.

Formula = $A(\text{Seed} + \text{lastRand}) \% \text{mod}$

10

10

6

10

6

8

5

9

5

8

6

3

0

9

0

9

3

8

1

2

6

4

1

8

2

2

4

9

5

2

10

4

7

10

7

1

4

6

4

3

4

10

7

8

6

6

7

9

0

6

Scenario 0

The Desert Scenario

Code introduces setting

Checks if this is your 1st, 2nd, or
3rd desert turn

Calls random number generator
procedure

Compares output of procedure
and places the player in 1 of 5
scenarios

Player experiences result
whether good or bad and stats
are modified

x2

```
graph TD; A[Code introduces setting] --> B[Checks if this is your 1st, 2nd, or 3rd desert turn]; B --> C[Calls random number generator procedure]; C --> D[Compares output of procedure and places the player in 1 of 5 scenarios]; D --> E[Player experiences result whether good or bad and stats are modified]; E -- x2 --> B;
```


Oregon Trail



The sun beats down on a rocky, arid landscape.
Hopefully the caravan is well prepared for the trail ahead.

OK

Oregon Trail



The sun and the heat are are oppressive out here on the trail.
You worry the oxen won't make it without extra water.
20lbs of supplies should be enough, but it's a lot to ask.
Enter (in whole pounds) the amount of supplies you want to ration for the oxen.

Please enter a number (in whole lbs) of supplies:

Oregon Trail



You make the supplies stretch as far as you can, but 1 oxen perishes in the heat.

OK

Oregon Trail



You are stopped in a narrow canyon. A large boulder blocks the path forward.
You can spend the day and resources trying to move it out of the way.
Or you can spend extra days to backtrack out of the canyon.

Oregon Trail



Enter 1 to move the boulder at the cost of supplies.
Enter 2 to backtrack out of the canyon and go around.

Oregon Trail



It takes the rest of the day, but you manage to move the boulder by using 20 lbs
of supplies.

OK

Scenario 5

The Lost Scenario

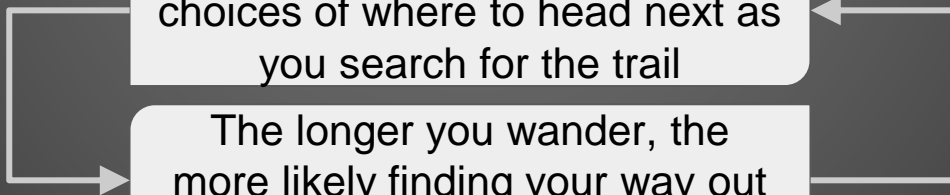
Code calls random procedure to give player a randomized start

Beginning prompt gives player a choice of directions

Each direction leads to 1 of 4 geographical locations

Each of the locations gives two choices of where to head next as you search for the trail

The longer you wander, the more likely finding your way out becomes



Oregon Trail

You find yourself among a number of rocky hills, hoping to have a better vantage point. You see no signs of an obvious trail from here. You do see what looks to be a small cave and the green canopy of a forest over the next ridge. Do you investigate the cave or head for the forest?

Oregon Trail

At the mouth of the cave, you find a number of old, clay pots and arrowheads, but no one has been here for a very long time. After a day of exploring the cave, you pull the wagon around. Do you head for the lake you can see nearby, or keep heading west?

OK

Oregon Trail

As the wagon rolls over the grassy hills, yours is the only trail around. As the sun sets on an uneventful day of travel, you can see a series of hills to the northwest and a forest to the west.

OK

A small, shimmering lake opens up before you. As you look around hoping to find the signs of other travelers, you don't find much. After a day of trailing the edge of the lake, you notice the lake sits between a large grassland and rocky hills.

OK

Oregon Trail

The forest is fairly dense and you've made slow progress navigating the trees. You've found a cave system in the area, and every few miles or so, you think you catch a glimpse of a lake.

OK

Human Disease: Ebola

I have developed 4 cases:

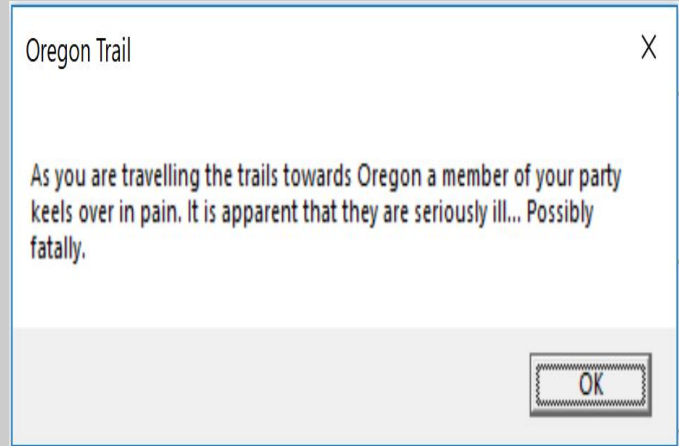
Each case is called according to the random number generated.

Case1: successfully overcame the disease and have survived.

Case2. The disease has affected 1 of your partners.

Case3. The disease has affected 1 of your partners

Case4. The disease unfortunately kills 2 partners.



Animal Attack: Wolves Attack

I have 10 cases developed since....

Case1: successfully overcame the attack and ever

Case2. Wolves eat one ox and wounds two oxes

Case3. Wolves eat two oxen and wounds two people

Case4. TWolves eat three oxen and wounds no people

.....

The most dangerous Scenario: Aliens Attack:

I have 4 cases developed.

Case1: successfully overcome the attack and could get along with aliens

Case2. Aliens took one ox to their planet

Case3. Aliens took away two oxen and one people

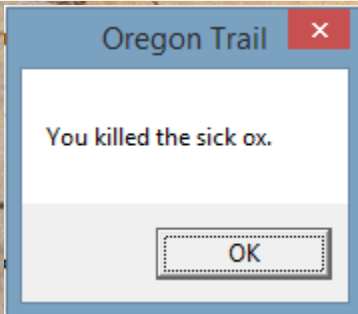
Case4. Aliens make a deal with oxen and take two people to their planet for examination.

Cody Clark: Scenario 7 and 10

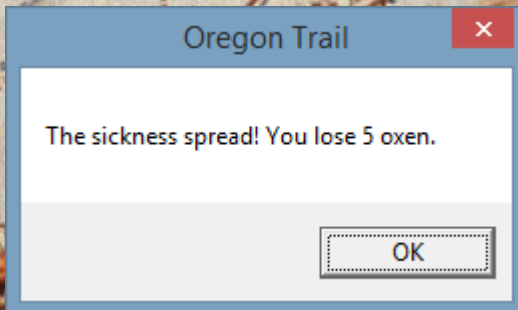
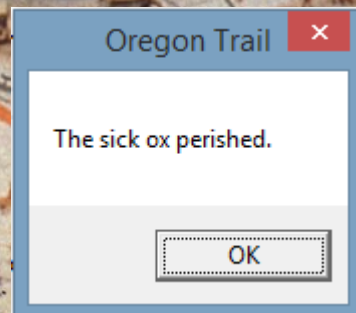
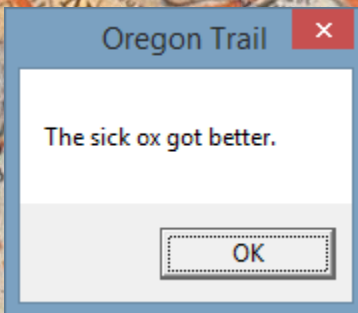
- General Structure is the same for both of these scenarios and emphasizes choice
 - Present player with the start of the scenario and a choice with numbers representing options
 - Input box for player to type 0 or 1 in order to choose what to do
 - Option 0 leads to a “safe choice” which will always have the same outcome and minor penalty
 - Option 1 leads to a “risky choice” which calls the randGen function
 - randGen function results in one of three outcomes consisting of no penalty, the same penalty as the safe choice, or a heavier penalty.

Scenario 7 (sick oxen) outcomes

Safe Choice outcome:

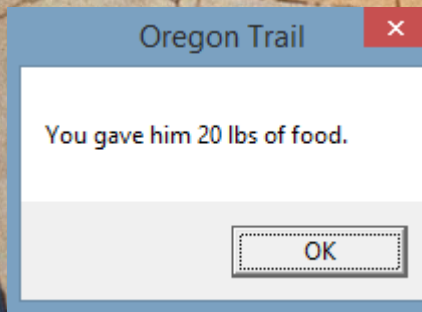


Risky Choice outcomes:

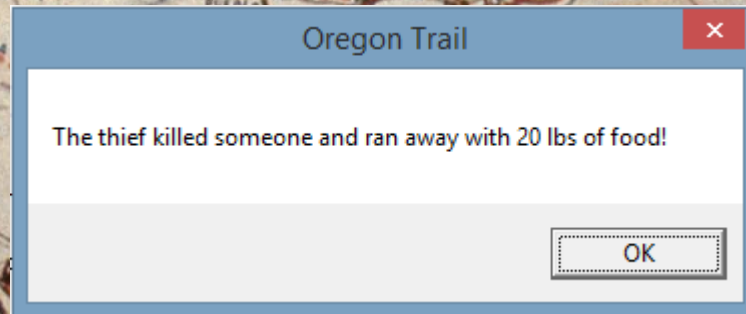
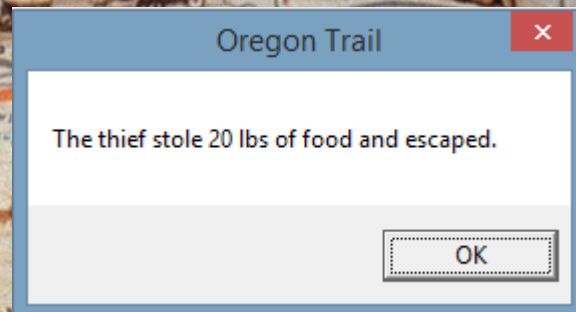
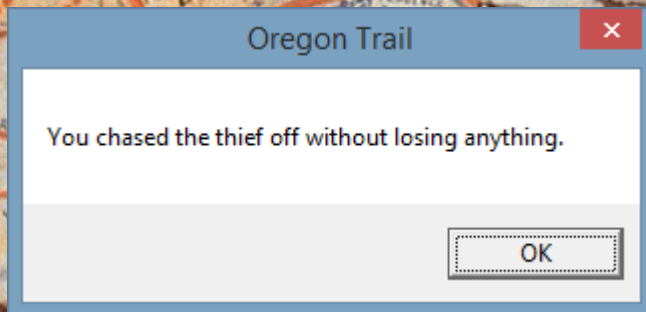


Scenario 10 (thieves) outcomes

Safe Choice outcome:



Risky Choice outcomes:



Ahmad Furmoli

Will now demonstrate our code

Want to see our Code?

Enter this link into a browser and download it!

Note: Link is case Sensitive.

<https://goo.gl/CvzHJm>