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Specification for Assignment 2 of 6

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Your submission for this assignment **must include your full name** (as it appears on cuLearn) and your nine-digit **student number as a comment at the top of every source file you submit**.

Your submission for this assignment must be a **single source file** with a **file name of either 'comp1405\_f19\_#####\_a2.py' or 'comp1005\_f19\_#####\_a2.py'** (with the number signs replaced by your nine-digit student number). It **must also be written** using the **Python 3** programming language, and **must run on the official virtual machine**.

**Do not compress your submission into a "zip" file.**

**Late assignments will not be accepted and will receive a mark of 0.**

**Submissions that crash** (i.e., terminate with an error) on execution will **receive a mark of 0**.

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**The due date for this assignment is Saturday, October 5, 2019, by 11:00pm.**

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"The Oregon Trail" was a (somewhat) educational computer game about life as a pioneer on the journey westward across the United States. The game required you to manage a wagon full of supplies while guiding a party of five settlers from Independence Missouri to Willamette Valley in Oregon. For this assignment, you will practice with the pipeline design pattern by writing a Python 3 computer program that parallels the initial choices made by a player a similar game of your own design.



Although you will not be copying "The Oregon Trail" directly, I strongly recommend you try the game at least once before starting this part of the assignment. The 1990 release can be played for free online at:

[https://archive.org/details/msdos\\_Oregon\\_Trail\\_The\\_1990](https://archive.org/details/msdos_Oregon_Trail_The_1990)

## Specification for Assignment 2 of 6

Please note that you must not attempt to reproduce the initial decisions from "The Oregon Trail" exactly; you are expected to come up with an original idea for the decisions for a similar game (wherein a player would make decisions while guiding a team to a destination).



Start first by displaying a list of possible "professions" (or "character classes", or "races", etc.) where the list items are either numbered (i.e., 1, 2, and 3) or designated by letters (i.e., a, b, and c) or Roman numerals (i.e., i, ii, and iii). Once you have displayed the list, ask the player to make a selection. It is not necessary for you to confirm that the player has made a valid selection, but you must store the player's choice in a variable.

Next, you must ask the user for the names of at least three members of the team. Store each name in a separate variable.

Finally, you must present the user with a list of five different types of supplies along with the cost per unit. You must then ask the user how many units of each supply should be purchased and keep a running total of how much the user has spent. After the player answers each question you must print out the "bill so far" and once the player has been asked about each of the five types of supply, your program must print out a summary of what was purchased.

You do not need to use pygame to complete this assignment, but you must not use any other libraries. On the following page, you will find an example of how such a program might appear to the user. Remember that you may not replicate "The Oregon Trail" exactly, as you are expected to use this as inspiration and create something similar (meeting the requirements detailed above).

Please also note that one of your mandatory reading assignments included instructions on how to format data that is being printed to the screen, so your program output is expected to be properly formatted. Costs, for example, must have a precision of 2 decimal places.

This program (along with any other program submitted in this class) must be a completely original work, authored by you and you alone, prepared for this offering (i.e., Winter 2018) of COMP1005/COMP1405. Do not discuss this assignment with anyone except the instructor or the teaching assistants, and do not copy images or source code samples from the internet or any other source.

## Specification for Assignment 2 of 6

## Transcript Example (with user input in red)

```
=====
The Oregon Trail
=====
```

Many kinds of people made the trip to Oregon. You may:

1. Be a banker from Boston
2. Be a carpenter from Ohio
3. Be a farmer from Illinois

What is your choice? 1

What are the first names of the four other members in your party?

1. Zeke
2. Jed
3. Mary
5. Henry
5. Anna

Before leaving Independence you should buy equipment and supplies.

Oxen cost \$40.00 a yoke. How many yoke do you want? 3  
Bill so far: \$120.00

Food costs \$0.20 a pound. How many pounds do you want? 1000  
Bill so far: \$320.00

Clothing costs \$10.00 a set. How many sets do you want? 10  
Bill so far: \$420.00

Bullets cost \$2.00 a box. How many boxes do you want? 99  
Bill so far: \$618.00

Spare parts cost \$10.00 each. How many spare parts do you want? 3  
Bill so far: \$648.00

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Matt's General Store
=====
1. Oxen          $120.00
2. Food          $200.00
3. Clothing      $100.00
4. Ammunition    $198.00
5. Spare parts   $30.00
=====
```

Total bill: \$648.00