**Spike:** 10

**Title:** Game Data Structures

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**Goals / deliverables:**

* Make a Report on 4 possible data structures to use for the player inventory for zorkish, pick one
* Create a working inventory system and demonstrate it.

**Technologies, Tools, and Resources used:**

* Visual Studio 2022
* Word
* <http://en.cppreference.com/w/cpp/container>

**Tasks undertaken:**

* Researched the 4 possible structures I picked
  + List
  + Vector
  + Map
  + Multimap
* Wrote the report on them.
* Picked vector
* Created inventory and player
* Created add and remove functions
* Created testing for those functions

**What we found out:**

First was the report on the 4 structures, I ended up picking vector over map (the 2 main ones I decided on) because of the lack of need for the keys. Although depending on how I implement later parts of Zorkish this may change.

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Next was the creation of the player and inventory. I decided to create the player as well as it would make later development easier with the ability to slot the player in and edit it.

A screen shot of a computer program

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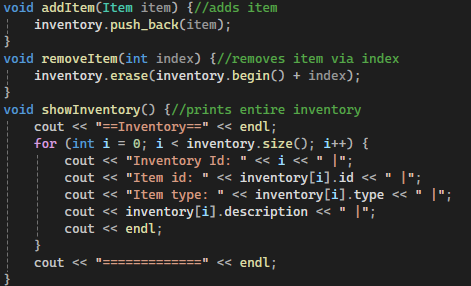
I created an enum for item type as I am likely to use that in the future.

A screen shot of a computer

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Next was the creation of the view, add and remove from inventory which was rather simple, although some minor difficulty with the remove, using erase can be a little tricky.

Also the item id and inventory index being able to be different might be very annoying to deal with in the future.



A screen shot of a computer

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Testing was next, with it being very simple to do with all the functions and constructors I had made already. This is the demonstration part of the second goal

A screen shot of a computer program

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Testing:

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Messed up my last commit slightly as I deselected some lines by accident.