

## Data Structures and Algorithms Project Phase1 Report

Team Name:

Number of members: 4

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## Project Data Structures:

| List Name:       | Chosen DS:     | Justification:  |
|------------------|----------------|---|
| 1]Healers        | Stack          | Because it was mentioned in the picking criteria that (Last-Come-First-Serve).<br>This means that healers are picked in the reverse order of their arrival.   |
| 2]Killed Enemies | Queue          | For the processing so we could output killed enemies who died first, for later processing in phase 2  |
| 3]Freezers       | Queue          | Because it was mentioned in the picking criteria that (first-Come-First-Serve).<br>This means that Freezers are picked in the same order of their arrival.  |
| 3]Fighters       | Priority Queue | Because it was mentioned in the picking criteria that (first-Come-First-Serve).<br>This means that Fighters are picked in the same order of their arrival.Fighters are chosen based on specific details in phase 2 so fighters with higher priority would be served first |

|                   |       |  |
|-------------------|-------|--|
| 4]Frosted Enemies | Queue | The first frosted enemy to return is the first one to be frosted |
|-------------------|-------|--|

## **Enemy Subclasses**

**1.Freezers**

**2.Fighters**

**3.Healers**

## **Additional Data members for castle class**

**1.Bool Isfrosted**

**2.Health**

**Killed enemies need to be stored in more than one list, because we need to output the killed number of enemies for each enemy subclass.**