**Introduction:**

This project aims to produce a program that uses object oriented programming in C++ to produce a text based adventure game in the console. The use of OOP includes classes and inheritance, polymorphism and the implementation of virtual and pure virtual functions. The aim of the game will be to pass through a set of “dungeons” picking up different weapons and fighting different enemies to reach the exit. weapons and enemies can be made using a base class and constructors to cover their basic stats and behaviours. Your character will be able to move through a map that can be printed into the console as a static picture to help the player move through the level.

**Design:**

**UML Diagrams:**

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| Character |
| -\_health : int  -\_positionX : int  -\_positionY : int  -\_name : std::string |
| +\_attack() : virtual int  +\_move() : virtual void  +\_miss() : virtual bool |

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| --- |
| Enemy : Character |
| -\_damage : int  -\_missChance : double |
| +\_ |

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| --- |
| Player : Character |
| -\_<vector> equiptment : string |
| +\_isHealth()  +\_isEquiptment() |

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| --- |
| Map |
| -\_<vector> mapLayout : vector |
| +\_displayMap() : string |

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| --- |
| Weapon |
| -\_damage : int  -\_name : string |
|  |

**Function Description:**

**Testing:**