**Project Title:** Tile-Based RPG

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**Abstract.**

My project is to create a Tile-based RPG (role-playing game). It is written from scratch in Java – no game engine or other 3rd party code is used. The game is played on a freely explorable grid-based world – meaning game characters can only move in cardinal directions – and viewed from a top-down perspective. The player has access to a range of abilities with which to defeat enemies – using different equipment, they can use short and longer range attacks with different effects. Enemies have artificial intelligence that allow them to navigate the world and fight the player effectively. There is a system for loading levels; text files of a special format can be read to populate the game’s grid system. All graphics are drawn by me; static objects were made to tile with themselves and other objects fit inside a grid space. There is a menu system that allows the creation of menus with sub-menus that can have their own sub-menus. In the game, this is used to for an inventory that the player uses to view their items.

Modularity was kept in mind when developing all parts of the program, such that extensions may be added with reduced effect to existing parts. This, along with using a custom engine – meaning any part can be changed if needed, means that future expansions are easier. Possible areas of expansion include types of objects, items, menus, non-player characters or player abilities.