

# Development of a MORPG

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The aim of this project is to design and build a basic multiplayer online role playing game (MORPG), with the focus on the structuring and implementation of the framework.

The project is split into 2 main parts...

The server section is responsible for keeping track of online players. It must validate all players actions and send them updates to the environment when required to make sure they are all kept synchronized.

The game client is responsible for keeping track of a single player and their surroundings. It should allow the user to navigate around the virtual world and interact with items and other players.



For communication between the server and client I aim to investigate the use of Apache MINA. MINA (Multipurpose Infrastructure for Network Applications) is a network application framework designed to help users develop high performance and high scalability network applications. It provides an abstract API over various transports such as TCP/IP and UDP/IP.



For data storage I am using a mixture of XML and SQLite.

I decided to use XML primarily because it is an easily readable and editable standard. I am making use of XStream, which is a free and open library for serializing java objects to XML and back again.



SQLite is a lightweight, server-less SQL database engine.

jMonkey Engine (jME) is a high performance scene graph based graphics API written in java. jME makes use of an abstraction layer to allow any rendering system to be plugged in, Lightweight Java Game Library (LWJGL) is supported by default.

In the coming months I am going to investigate the use of jME within the client with the aim of developing a working 3D environment for the player to navigate.

**jME is a high performance Open Source Java-based game engine.**



So far in this project I have concentrated on designing and implementing the server. I have looked at Apache MINA and have 2 way communication working between the server and the client.