**Tools and Technologies List**

Hardware:

* General PC Workstations for:
  + Programming
  + Asset creation, including:
    - 3D models
    - Textures
    - Sound (music and sound effects)
    - Art (conceptual/production)
* Peripheral hardware such as:
  + Mixers for sound designer
  + Drawing tablets for artists
* Servers:   
  We would need a number of servers to serve as various different backends

(such as login, connection, world and area servers, core database and cache servers), to simulate and test latency and other networking issues.

Software:

Game Engine: Unreal Engine 4 (<https://www.unrealengine.com/en-US/>)

Unreal Engine is particularly crucial, as game development on this IDE/game engine can be compiled for the various platforms we want to target, eventually.

Developing on Unreal Engine allows us to leverage the various middleware options available on that platform to fast track out proof-of-concept. On the client/frontend side, we would need licences for:

* BigWorld (<http://bigworldtech.com/technology/>)
* SpeedTree (<https://store.speedtree.com/>)
* Havok (<https://www.havok.com/>) for physics and AI solutions
* Simplygon (<https://www.simplygon.com/>) for 3D optimisation
* Enlighten (<https://www.siliconstudio.co.jp/middleware/enlighten/en/>) for lighting solutions
* Wwise (<https://www.audiokinetic.com/products/wwise/>) for audio solutions

Other software licenses we would require include:

* Adobe Creative Cloud (<https://www.adobe.com/creativecloud.html>):   
  For textures, animations, artwork, audio creation, etc.
* Autodesk 3DS Max (<https://www.autodesk.com.au/products/3ds-max/overview>):   
  Model creation, rigging and animation, etc.
* FL Studio (<https://www.image-line.com/flstudio/>):   
  For music creation, whom Aiden has experience with.
* Windows Visual Studio Professional (<https://visualstudio.microsoft.com/>) for software development

Backend software licenses would include:

* MongoDB (<https://www.mongodb.com/>) for database management