**Assignment 1**

**Research and Report**

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There are many game development studios with opportunities available, but I will be focusing on three companies that are located close to me. The three companies to be looked at are Electronic Arts (EA), Relic Entertainment, and Archiact. We are going to look at where these companies came from, what made them successful, and what commonalities they have in terms of job requirements. The companies are very different in scale when it comes to employees and culture. We will start with the biggest first.  
  
EA was founded in 1982 by Trip Hawkins who was an Apple employee at the time. Hawkins was the director of strategy and marketing at apple computers. Hawkins' idea was to treat software as an art form, and the developers as artists. From this idea, the name Electronic Arts was made. Hawkins was able to use his connections and marketing skills to quickly take a foothold in the industry. Today EA is a publicly-traded company with more than 450 million registered players worldwide and in the year 2021, they earned approximately $5.6 billion. EA Vancouver is most known for its EA Sports games.  
  
EA Sports boasts an impressive amount of games with the largest being Madden, FIFA, and NHL. The games feature realistic recreations of real-world sports. Realism and online competition seem to be their biggest draw. The games are made using their proprietary engine, which is currently called EA Sports Ignite. Like most games, it is written in C++. The junior software developer jobs available at EA require C/C++ web development, and web scripting language experience. As I already have some experience with web development I could take an Athabasca course like COMP 306: C++ for Programmers. Any other course that taught game development would also be helpful.  
  
Relic Entertainment was created in 1997 by Alex Garden and Luke Moloney. The two friends wanted their focus to be solely on RTS (Real-Time Strategy) games. In their words, they wished to become "the world's best RTS studio". Their breakout project was a partnership with Sierra Online to develop the game Homeworld. They are located in Vancouver and have 250 employees. Their estimated yearly revenue is around $50 million. Some of their most notable games include Age of Empires 4, The Company of Heroes franchise, and the Warhammer 40,000 franchise.  
  
All of the games Relic makes are RTS games so they feature a top-down view of the environment with the ability to control many different units simultaneously. Each RTS game they make uses their proprietary engine called Essence Engine. Although all of their games have these similarities, the setting and story of each franchise is vastly different. Age of Empires is set in the far past where workers collect lumber and minerals with crude tools. Company of Heroes features world war two as its background. Finally, Warhammer 40,000 is set in a far distant future with a space-faring civilization. Relic's main language is once again C++, so I think the same courses I described helping with EA would also apply here.  
  
Archiact was formed in 2013. Their main focus has always been on virtual reality. The first game they released for sale was a mobile VR game called Lamper. Archiact is still a relatively small and new startup with its backing coming from Venture Capital. They have approximately $3.5 million in funding and an estimated annual revenue of $2-5 million. They have worked on many smaller VR games, but their most notable games are Doom 3: VR edition and Marvel Dimension of Heroes.  
  
Doom 3 was a wildly popular classic so it's easy to see why people would want it to be ported to VR. Virtual Reality allows for an immersive experience like no other. However, Doom 3 is a fairly old game, it was released in 2004, so the graphics weren't so great. In VR you can look as close as you want, so it did look outdated. Doom is a first-person shooter where you fight demons, and I'm sure with the right visual fidelity would be terrifying. Marvel Dimension of Heroes was a mobile VR game that heavily used motion controls to interact with the environment. It played somewhat like a parlour game where you stand still and hit targets with marvel weapons. Once again these games use mostly C++, although this time they also ask for experience with either Unreal Engine or Unity.  
  
Therefore I can confidently say that I should become very comfortable with C++. All three companies listed that any game development experience would also be an asset. EA, Relic, and Archiact are three very different companies in magnitude. So, with this knowledge, I think the best chance for me to get a career with any game development company I should study C++ and work on some personal game projects.

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