**CMPS 5153 Software Engineering**

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**Group: Cloud-MSU**

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*We have decided to implement a mobile order processing system designed for cloud services. This system will be known as* ***Nimbus.I/O.*** *The system will run natively on the most current android build (Currently, Android 7.0 “Nougat.”) Since the system will be built on Android, our programming language of choice is Java. For our development and testing purposes we will use Android Studio, which is the official Android integrated development environment, or IDE, built on Android’s Software development kit, or SDK. Along with Android Studio, we will use Github for source code management as well as WhatsApp for team communication and coordination. Using our platform, customers will be able to select a wide configuration of hardware and software options. These selections correspond with various cloud-based solutions of hardware infrastructure, or IAAS (Infrastructure as a service) or software platforms, or PAAS (Platforms as a service), which are available for purchase from cloud based service providers. Take for example, a typical use case, known as ‘configure account’, where a user after creating an account, would log in and be able to select a mixture of options from a variety of available hardware and software solutions, such as “Dell PowerEdge 2900” or “Managed, Hosted Microsoft Exchange Server.” Based on a users selection, we calculate installation costs as well as monthly fees. Once the customer approves of the configuration, the system will create an invoice and notify all stakeholders, such as the administrator or account manager that an account and invoice had been created. In a separate use case, known as ‘check balance’ a user who already has an active account as well as configuration options may want to log in to review their previous billing information or check their current balance. Likewise, there is a case, known as ‘modify account’ where a user may wish to modify details of their account such as billing address, or even modify their service configuration options. Additional use cases, for example, for users to attempt password recovery, or create or delete accounts, will also be provided. Along all of the functionality contained in the Android based GUI which user interacts with, the GUI module itself will interact with a server backend, which stores our database of customer and billing information. The software will also have the ability to email or sms-text customers or administrators as required. This will work together to form a cohesive, mobile, real-time transaction processing system application centered on android that will provide an easy method for customers to select and purchase cloud based hardware and software.*