**Feasibility Report**

**Team: NaCl**

**Product:**We are to create a database and utilize a scanner which will help keep track and manage the School of Natural Sciences’ lab equipment.

**Technical Feasibility:**The user will utilize a mobile scanner and will be scanning barcodes. Laboratory entrances will have a barcode. When users scan the entrance barcode, they will be able to walk around the lab and scan each piece of equipment’s barcode, which will contain the item, the serial number, and the location. If a faculty member requests equipment, the user should search the name of the equipment in the database and the results will show whether the equipment is available, where it is located, and how many are available. If the equipment is found in a different room than scanned, the user will be prompted if they want to move the asset to another room. We must build a database that recognizes the barcodes, as well as provide an interface for the user to be able to look up lab equipment.

**Social Feasibility:**

The usability of this program is extremely simple and user friendly. The user is given a barcode scanner in which they scan the room before entering then proceed to scan each equipment in the labs. The goal of the system is to provide a management system that is easy to use and provide the quickest path to usage as soon as possible. We hope to get feedback from the users about the difficulty level of the system before we are too long into the development process.

**Economic Feasibility:**Developing this project will introduce new costs to the table. The IUS IT team will have to be responsible for the database and application hosting. IUS would have to provide training to the people this app is intended for. In addition to hosting costs, IUS would also have to maintain the database and codebase. Benefits would include not having to spend $1200 annually on third party inventory management software. In addition to that, this project would be open source to IUS students that want to contribute. Another benefit is that IUS could distribute this application to other campuses.

**Market Research:**A comprehensive market research identifying a need for the product. Detail all market research you carried out, listing sources of information. Justify any conclusions you have drawn from your research. Identify the potential customer base for your product, together with evidence of customer need for the product. Describe how you propose to compete with similar products on the market.

**Alternative Solution:   
1.** We may have to consider using a different scanner other than the Zebra. The Zebra system is a closed, proprietary system that we may have to pay extra for. We may add functionality to manually add equipment to the database via a keyboard/mouse or tablet rather than the Zebra device.  
**2.**We currently have issues with being able to access Zebra’s library. Without granted access, we may have to opt for an open-source solution.  
  
If we are not able to use our proposed system using Zebra, we would prefer to use the second option, as there would be documentation and would most likely be free.

**Project Risks:**There are risks attached to this project. First we must make sure that the data is stored securely. Since the management system is location based that means every time a room  either changes its location or room number or when an equipment is moved from one room to another the user has to manually update the room locations inside the system because each items have their own barcode which is tied to the room they reside in.