**Connected Campus Crew**

Mark Girguis, Kishan Patel, Ankit Monga,

Eric Gonzalez, Jason Chung, Hector Khuon

**Deliverable 1**

**IS 436 - 03**

**2/21/19**

**Project Description | Connected Campus**

Every school collects student activity through the swipes of their student ID’s. Students swipe at the dining hall, which constitutes a check-in. Students also swipe their ID’s at the front desk of the RAC. They swipe at the residence halls, the library, labs, and so many other places. What if there was an app that could be used (with permissions) to analyze just where students are visiting the most and at what times. This data could be used to make business decisions regarding where/when to staff certain areas more and alerts to be sent out. This alert system could be used to minimize the broadcast messages until absolutely necessary. For example, if there’s a water fountain not working on the second floor of the RAC, only students who swipe in will get that notification. Dashboards/views could be made, and HIPAA will have to be thought of.

**Team | Connected Campus Crew**

|  |  |  |  |
| --- | --- | --- | --- |
| **Member** | **Phone Number** | **Email** | **Role** |
| Mark Girguis | (301) 908-0874 | girguis1@umbc.edu | Project Manager |
| Ankit Monga | (301) 605-2477 | mankit1@umbc.edu | Data Analyst |
| Kishan Patel | (410) 446-2222 | patelk2@umbc.edu | Programmer |
| Jason Chung | (301) 641-3254 | jchung11@umbc.edu | Systems Designer |
| Hector Khuon | (410) 812-6894 | hkhuon1@umbc.edu | Quality Assurance |
| Eric Gonzalez | (240) 281- 6984 | egonza2@umbc.edu | Business Analyst |

**Meeting times**

We plan to meet a minimum of twice a week outside of class and will adjust our times accordingly as we move closer toward the final deliverable.

**Team Bios**

**Mark Girguis:** This is my last semester at UMBC before I graduate with a B.S. in Information Systems! I’m involved in many facets of campus, which is why doing this Connected Campus project is so important to me. I’m the President of the Student Events Board (seb), involved in Greek Life, worked for Commons Operations, and the Campus Life office. I’ve realized how often I use my student ID to get access into offices, pay for my food, pay for printing, access the RAC, and many other areas so I’d like to focus on what UMBC actually does with the data. As Project Manager, I plan on using my leadership skills to lead my team to a successful system presentation when it’s all said and done.

**Kishan Patel:** I am a senior graduating this year with an Information Systems major and Economics Minor. I have spent the majority of my time in Maryland, exceptions include two summers in New York City for internships and two years at Temple University before transferring to UMBC. In my freetime I like to play basketball, travel, and watching movies. As programmer for this project I hope to apply the skills I’ve learned over the years at UMBC to help code our project and make it a reality.

**Ankit Monga:** I am a senior graduating this year with a bachelors of science in Information Systems. I was born and raised in Maryland and have been at UMBC all four years of my collegiate career. As a data analyst for this group i hope to use my experience with analyzing trends in large pieces of data to serve my team and achieve the goal with our project.

**Hector Khuon:** I am in my senior year and graduating this Spring 2019 semester with a Bachelor's in Information Systems. I first started at CCBC before transferring to UMBC. I hope to apply my technical and programming knowledge as Quality Assurance for this project and make sure it meets the standards.

**Jason Chung:** I, as well, am a senior, graduating this Spring 2019 in with Information System BS degree. I am a transfer student from Montgomery College, where I acquired my associate’s degree in Information Systems. I spent the past 2 years working here at UMBC at the Divisional Professional Studies (DPS) Department as an Student Technician for staff members. A couple hobbies I enjoy to do is playing basketball, photography, and snowboarding when I get the chance.

**Eric Gonzalez:** I’m a senior graduating in the Spring 2019 with an Information Systems degree. I spent 2 years at Howard Community College before transferring to UMBC. As a business analyst I planning on coordinate the needs of external stakeholders and communicate business ideas and plans with the technical team.

|  |
| --- |
| **Systems Request | Connected Campus** |
| **Project Sponsor:** Jack Suess, Vice President, Information Technology |
| **Business Need:** This project has been initiated in an effort to use student swipe data more efficiently to promote business decisions. Currently,   * Areas on campus are overstaffed during times of little to no traffic * All students, including alumni, are receiving broadcast campus alerts for areas that don’t concern them * LMS Engagement scores are being recorded but not used to trigger alerts to struggling/barely active students |
| **Business Requirements:** Using this system as a Web-based application, UMBC (specifically DoIT) will have access to dashboards of student activity on campus in real-time. The specific functionality that the system will have will include:   * Alerts that would be triggered once an area gets overpopulated, to inform users in the area about high-traffic * Alerts that would be triggered if a facilities issue occurs * Option to make the alert located to a geographic location (using WAP data) or to trigger a broadcast alert to every student in the database * Posting Alerts to Organization website and Mobile Application. * Ability to correlate student LMS engagement to grade distributions * Permission-based interface * Agile and flexible dashboard updating in real-time * Easy to learn UI |
| **Business Value:** We expect that Connected Campus will use student swipe data to allow UMBC to more efficiently staff areas on campus. By doing so, FTE’s whom are rarely being used during times of little student traffic could be cutback to PTE’s to efficiently save on budget. Connected Campus will also trigger alerts to students whom the alert will directly impact. This includes situations where, for example, a foreseen school closure due to inclement weather. Situations like those will be systematically sent out to students/staff/faculty who are currently enrolled as employees or students. Lastly, by tracking LMS engagement data, the system will strategically inform students of tools necessary to help them achieve (through an email), and will inform professors of struggling students need.  Conservative annual estimates of tangible value to UMBC include the following:   * $252,000 increase in additional budget from conversion of FTE’s to PTE’s * 1.00-1.50 GPA increase campus-wide * 284,000 fewer recipients of alerts sent out |
| **Special issues or Constraints:** Will need access to student swipe data. Will also need to be in compliance with HIPAA. |

15\*20\*56\*15 = 252,000

71,000 alumni \* 4 campus closures = 284,000

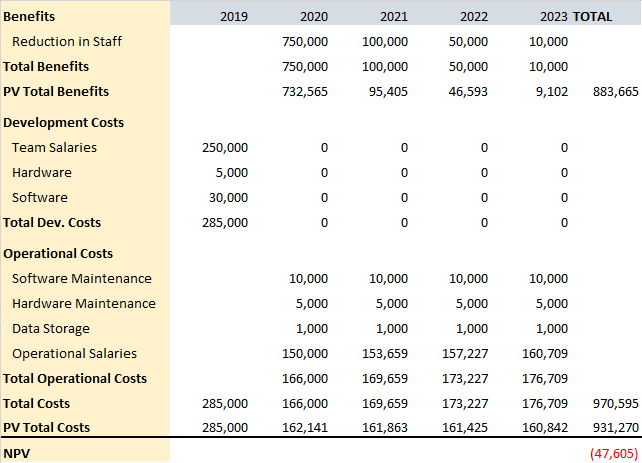
**Feasibility analysis | Connected Campus**

**Technical Feasibility: Can we build it?**

In order to make this application possible, there needs to be a outline of how the group goes about when making the application. Also it is important to notice if this type of application is recent compared to other technologies, so that our application can be compatible. We live in a society where smartphones are incorporated into our daily lives, so everyone should be able to access our application. With our assigned roles for the project, I believe our project is feasible. For an example, with a programmer, we will be able to create the application itself and then with the System designer, the requirements for the application will be acquired and passed down to the programmer. Also with other “check in” form of applications already existing, we can use that as reference for production.

|  |  |
| --- | --- |
| Familiarity  - Alert systems are already used  - User-friendly UI  Project size / Distinct features  - Entire campus, approximately 15,000+  - 3 month time frame  - Location-based alerts | Compatibility  - Must integrate with current swipe data and LMS |

**Economic Feasibility: Should we build it?**



|  |  |
| --- | --- |
| Development Costs  - Team salaries  - Hardware and Software  - Office Space and Equipment  - Data Conversion Costs  Operational Costs  - Software Maintenance  - Storage Fees  - Ops team Salaries | Tangible Benefits  - Reduction in Staff  Intangible Benefits  - Improved Service  - Improved Decision Making  - Alert System |

In the NPV of benefits and costs came out negative, but this project has many intangible benefits that cannot be quantified. The ability to track the traffic in buildings will allow for improved service to students and faculty, improved decision making, and a more comprehensive alert system.This is a feature in which the social benefit greatly outweighs the monetary benefit, which is what a public university like UMBC should be looking for.

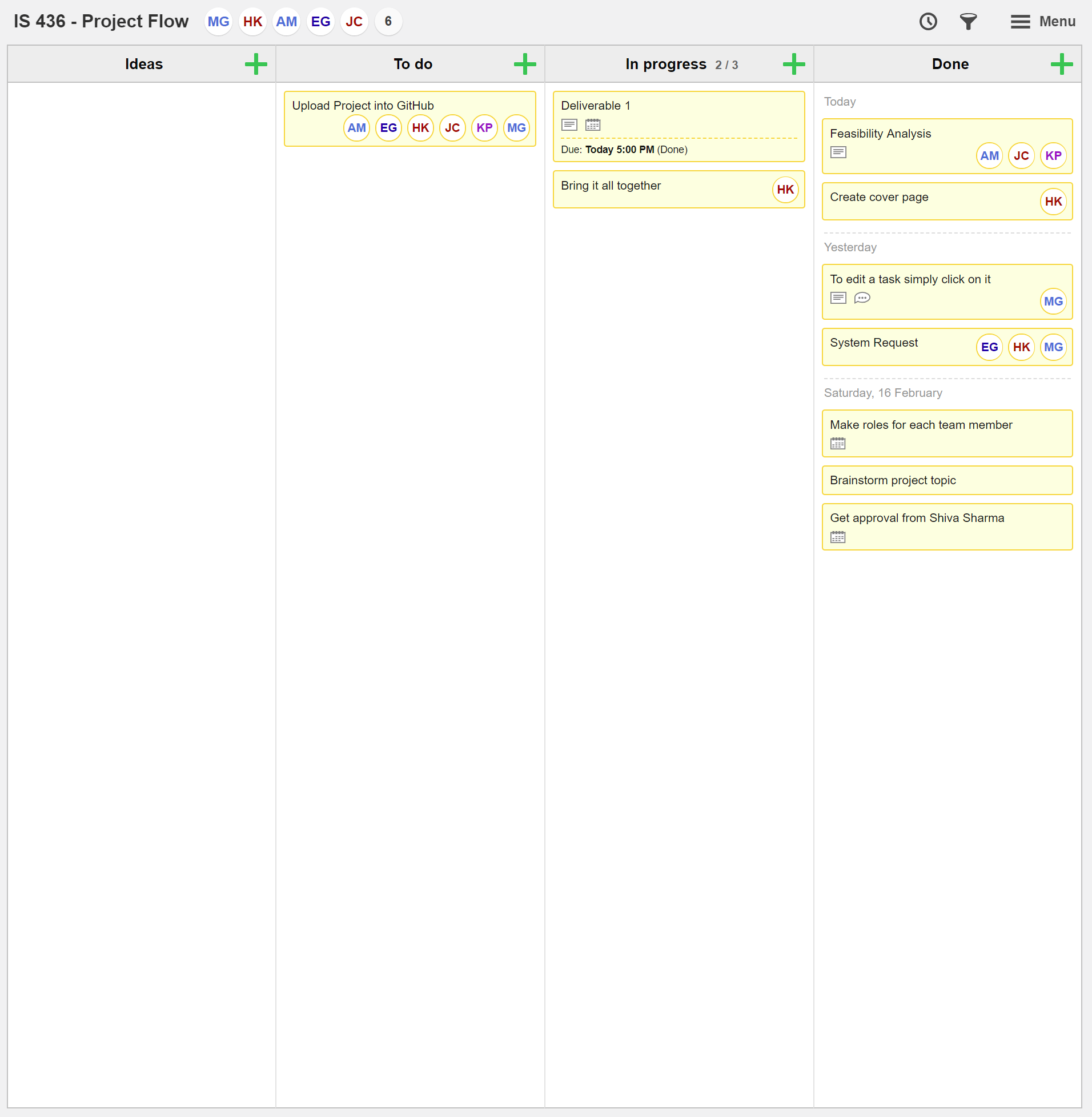
**Organizational Feasibility: If we build it, will they come?**

The ability of the initial management team is that they will be able to see trends. Once trends are seen their abilities will be they can make campus life easier because if they notice there is more traffic in the RAC from 4-6 PM they can make sure that is the time the most staff is there to assist students. This would make daily actions easier for students as well as show the ability of the management team to make a difference on campus using the information that they have. The non-financial resources that are needed for this HR are the management needs records of the activity at these buildings for a fair amount of time so that the data is not skewed and they can provide accurate responses. The facilities and location will need better tracking systems so that the management team can get the records of the flow of traffic coming in and out of the locations. The equipment needed are going to be the swipe machines that will track the data and a database that will hold the info. These resources must work together well for this organization to work proficiently and effectively. Having the right equipment at the right places will be how this company will succeed so that they can track the info and give the right resources to the correct places.

|  |  |
| --- | --- |
| Strategic alignment  - Increased efficiency  - Cut costs from overstaffing  - Improve student production  Management prowess  - Allow greater control of staff  - Real-time data  - Effective alert system | Resource sufficiency  - Existing card reader already deployed  - Staff reduction eases load on overall resources |

Source: <https://researchguides.library.brocku.ca/ENTR2P91/organizational-legal>

**Kanban Board | Connected Campus**

****