Problem Statement	Solution Statement	End Users	Other Stakeholders
How would you describe the problem that your project will solve? Our project will solve the problems for the security of future homes and future businesses. We find that there are a lot of security issues in the most used locks for doors. Losing your keys or keycard to places that you may need access too can prove to be dangerous for any malicious individuals. That's why with a facial recognition door lock the only thing you would need to carry with you is your face.	*What is a brief description of your high-level solution to the problem?* *Our solution to the problem is by developing a working facial recognition lock you will be able to use your face to gain entry to your desired place. No more losing keys and no more losing any keycards to gain entry.*	*Who are the end users that would use your product?* The end users that we would want our product to reach would range simply from residents and employees of business or even security personnel. But it's a broad range we would want anyone that wants a more secure way of entry to have this product.	*Who else would be relevant to your idea? Include potential vendors, coaches, instructors, team members, industry members, sponsors, etc.* *Cyber security experts would be relevant to our idea as they can help come up with ways to secure our system this would include keeping photos of individuals safe and the registration information gathered from them. Any faculty members or employees of businesses that could report of how people may have intruded into their business could be beneficial for us as well.*

Competitive Analysis	Differentiator	Elevator Pitch	Assumptions
Who are the competitors that have similar solutions, and what is a one-line description of their solution? *Currently in this group we do not have any competitors. Nobody in this group has an idea similar to us however, there is one group we know in a different group that is utilizing a lock for their project.*	*How will your solution be better/different from the competitors?* *Our solution will be better as we have brainstormed more ideas for our project that we plan to execute. Examples like having some sort of two factor authentication. And having a website that users can access to help them register their product and themselves to the database.*	*What is your 30 second pitch to peak the interest of someone who has never heard your idea?* *"Introducing our facial recognition door lock, the future of secure access control. No more keys and goodbye to codes! With our system your face is the key. Its secure fast and convenient."*	*What are you assuming to be true, that if not could have a significant impact on your ability to execute this project?* *Some of the assumptions that we have that are true are assumptions like having a working database that can obtain users information and register their pictures. Another assumption that we have is that the raspberry pi will be able to be fully functional and work well with the camera to be able to scan faces. We would also assume that we can obtain a door in the future and a working lock.*

Major Milestones	Technical Skills Requested	Business Skills Required	Professional Skills required	Constraints
What are the major milestones of your project? *A major milestone of our project as of right now is to be able to have a website that is hosted on Amazon light sail. With Amazon light sail working we would also want to utilize the database, so we are able to extract information from it. We would also want to be able to setup some type of user authentication for the device to add some security to the project.*	*What technical skills are required for this project?* *Technical skills required for this project would be effective communication with the group to be able to keep everyone up to date on progress. This would also include people skilled at working in Amazon light sail and are able to navigate through the service efficiently. We also need skills in coding in html or php. to help create working and suitable websites. Also, to be able to use a database and extract information from the*	*What skills and industry knowledge are required to complete the project?* *Some of the skills and industry knowledge required to complete this project would have some understanding of security in technology like computers or websites. Also having some project management would be nice to include. This would help us efficiently execute deadlines and reach objectives in time.*	*What professional skills will be required to complete this project?* *Some of the professionals' skills that we would need for this project would be collaboration and communication skills. It is highly recommended that we continue having these skills to benefit ourselves in the future. We also would prefer to have some skills in adaptability. Being able to adapt to unfortunate circumstances would be beneficial as well as our group having faced a lot of hard challenges.*	*What do you already know to be true that impacts your ability to complete the project (e.g. course schedules, completion dates, etc)?* *Constraints that are present for the team that impacts on us have been the health of our members. Some of our members may be unable to attend classes due to health issues. This would also be related to other courses that our members may prioritize other courses than the capstone class. Other impact would be financial aid as some of us are*

	website into the database and into the raspberry pi.			*unwilling to spend money on buying future parts.*

Part One: The Template

Part Two: Product Backlog

Complete the product backlog based on the end users and stakeholders identified in Part One. Anything with priority status must be part of your minimum viable product.

User Story ID	As a…	I want to be able to…	So that…	Priority	Sprint	Status
1	Administrator	Edit the database so the customers using this product will have their faces already recognized	The facial recognition door will open because it matched with the faces in the data base.	Must	3	Completed
2	Producer	Ensure that I am selling a product that is fully functional, that can scan peoples faces.	Customers will be satisfied with the product that they receive	Could	3	Completed
3	Administrator	Ensure that the database has a backup or keep regular health checks	The door will still be able to function and won't lose it functionality	Could	3	Completed
4	Administrator	Create a detailed schematic of the facial recognition door	Future buyers will be able to identify the key components of our parts. This will also allow the developers have an easier time determining the functionality of the product	Must	2-3	Completed
5	User	Have my face be able to be scanned by the product	The door will unlock on recognition of the scan	Must	3	Completed
6	Developer	Make sure that there are regular updates or patches for the software that is being used	There will be little problems in the future. This will help mitigate future problems.	Could	3	Discontinued
7	Developer	Provide Documentation and Support	Users and administrators can understand and use the system effectively. By creating comprehensive documentation, ongoing support, and user guides this will help with any problems that users may be facing	Must	1	Completed
8	Developer	Create a user interface	Users will be able to create an account on the website. They will see the documentations and manual of the product there.	Could	3	Completed
9	Administrator	Make sure to keep the database secure as possible to ensure that the data is highly protected	So that users face, or private personal information can be leaked or stolen by third party sources.	Could	2 or 3	Completed
10	Administrator	Be able to monitor any access attempts	So we can be able to track, identify, and log any access attempts from any individual to help upkeep the security of the project for the security team that uses the product.	Could	2 or 3	Discontinued
11	Administrator	Customize the systems settings	We can configure various parameters. This includes sensitivity parameters, user permissions, and notification preferences to fit the needs of the user	Could	2 or 3	Discontinued
12	Developer	Establish communication with Database	So that system can communicate effectively with the central database for data extraction This would involve developing necessary protocols and network connections to help ensure a safer, secure, and reliable communication between the devices	Could	2-3	Completed
13	Developer	Integrate some testing and debugging for the system	We can make sure that the system functions as intended and is free from future bugs and errors. This will involve thorough testing throughout the sprints and stages of development. This will help identify and fix any issues and ensure that we produce a robust and functional facial recognition door.	Must	1-3	Completed
14	Developer	Be able to set up a way for users to register their face into the database	Users will experience a more easier way of being able to register their face to the product.	Could	3	Discontinued
15	Administrator	Add raspberry pi to the system this will help with the software that we use for our facial recognition door	We are able to use the product. Our software that we would be using for this product is open sourced and can work perfectly for our python code.	Must	1	Completed

16	Administrator	Have working software or code for the facial recognition door	The door will be able to fully function, scan, and recognize any individual properly without fault.	Must	1	Completed
17	Administrator	Host a website on AWS	Users will be able to register their information and include a photo into the database	Must	3	Completed
18	Developer	Create a manual for users.	We have some documentation on our product that will allow users or future buyers to find out about our design and functionality of the lock	Must	2	Completed
19	Developer	Create a working registration page	Users will be able to register their information within our website and have their information be sent to the database.	Must	2	Completed
20	Developer	Create a sort of two factor authentication	Users will know that there is a secondary type of security for the system so that no random individual will have access to their building without additional confirmation from a user.	Must	3	Discontinued
21	Developer	Create additional pages like support	Users will be able to find a way to get support for the product this could include the page of the manual for additional help or to reach the developers to give their thoughts on the product.	Must	3	Completed
22	Developer	Own a door frame and a door	We can test the functionality of the motorized lock and the code for facial recognition	Must	3	Completed
23	Developer	Successfully create a database	This will allow user registered information to be stored in the database so that we can extract information and send it to the raspberry pi	Must	3	Completed
24	Developer	Connect the website to the Database	The information from the website will be sent to the database and will be sent the raspberry pi for functionality	Must	3	Completed
25	Developer	Modify the code so that upon recognizing a face the lock with unlock	Users who scan their faces will be able to open the door once their face has been recognizing and the motorized lock unlocks	Must	3	Completed