Detailed Instructions

(section by section)

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Executive Summary

This project is an application for IOS and will revolutionize the digital wallet called The Supreme Card. This app makes choosing which credit card to use more accessible, resulting in more cashback per transaction. People who sign up for this app will receive rewards. The app is a simple-to-use app anyone can use. The benefits of this app will be more than paying for the cost of using it. With a secure database and 24/7 support, users will never have an unpleasant experience using this app.

1. Introduction and Overview

## Problem Statement

According to *Forbes*, "Roughly 191 million American adults have at least one credit card account [and] half of all Americans have at least two cards" (Forbes). With so many people owning a credit card or two, we should expect them to know how to redeem and use their rewards, right? According to a survey of about 1,300 U.S. credit cardholders, "Nearly 70% of rewards credit cardholders are sitting on unused cash back, points or miles" (LendingTree). With The Supreme Card, users won't have to choose which card they use when purchasing. The Supreme Card will automatically know and use their preferences or the card that will provide the most cashback on the purchase. It will also allow users to learn how to redeem their cashback and how much they get.

The Supreme Card will work with banks to provide more cashback to users who use The Supreme Card. The banks will want to work with us because people want to save the most money possible, so they will open credit cards with different banks to maximize cashback. By partnering with The Supreme Card, banks will have many more customers using their credit cards. Banks will get advertising through our app, which will pull in more users to that bank because they know they will save money with it. Users will use The Supreme Card because it will be convenient for them, and they will start saving a lot of money. Redeeming cashback is daunting for some people, but with The Supreme Card, it will all be in one place, and it will be easy to understand each credit card's benefits.

## Project Vision and Scope

The vision for this product is that everyone with multiple credit cards will have this app downloaded, and it will reward people who open many credit cards. The Supreme Card will partner with every major bank in the country. First, this must start small because it will be hard to do everything simultaneously. First, we must ensure a large enough database to hold people's credit cards and personal information. We then need to ensure we have perfect security because we are dealing with people's money, so there could be a lot of legal trouble if we get hacked. Once we have the security and database, we must build the app's front end by implementing AI. The AI will detect which card will be best for the transaction and pay with that card. It will be a simple app that everyone can download from their phones and anything with an NFC chip.

Once we build the whole application, we will contact banks individually to ask if they want to partner with our app. If they say yes, the banks will provide more cashback to the customers if the customers use our app, and the bank will get put into the partner tab, and people can see that they will save more money with that specific bank. Getting at least one bank to partner with us will encourage other banks to partner with us to beat out their competitors. The more banks that partner with us, the more people will download the app, and the more people that download the app, the more different banks will want to partner with our app. Ultimately, we must start with local banks and then branch out. We want to get as many banks as possible in the U.S., but we could also reach out to banks outside the U.S. if it becomes big enough.

We must ensure that only banks we partner with get more cashback when people use our app. If banks start giving more cashback when using our app without partnering with us, we will need to either try to get partnered with them or make sure they can't use our app with their card. If they try to use our app without being partnered, we could lose a lot of revenue.

## Requirements Summary

These items/ideas are required for the development of this application. Without these, the development process will be impossible in the future.

* Developers that either have a macOS environment or an Android environment
* Marketing Team
* Cooperative banks
* Access to people's credit cards
* Database

## Stakeholders and Their Interests

One of the primary stakeholders in this project is the people with multiple credit cards. Of course, people with only one credit card can download and use the app, but it won't be as beneficial to them as it is to people with multiple credit cards. People with various credit cards are interested in this app because it makes choosing the right credit card to pay with more accessible. It also allows for easier access to each card's benefits and shows how easy it is to redeem the rewards. This app will make it easier for people to physically see the cashback or rewards they are getting on their credit cards. People with multiple credit cards who use this app will start noticing that the amount of cashback they get increases. This app is for people who either regularly redeem their cashback or do not know what it is.

More stakeholders of the app are the banks. The banks will have more people on their credit cards, and the banks will get more money. If banks partner with us, they will get more advertisements for their bank, and more people will go over and open up credit cards with that bank. Some banks may have people using their credit cards who wouldn't usually use them because those people are too lazy to find the credit card that will give the most cashback. For example, if someone has a card that they primarily use that gives 1% back on groceries, and they constantly use it for everything but have a credit card B that offers 1% cash back on gas, then with The Supreme Card, it will use card B when buying gas. This app will get people to use all their credit cards, which will benefit banks because it may open up people to rewards they need from other banks.

Some other stakeholders of this product are those with only one or zero credit cards. This app will reward them with multiple credit cards because they will save more when buying stuff with The Supreme Card.

Other stakeholders in this product are the investors. They are putting their money at risk when investing in us, and they will succeed based on whether we succeed.

## Expected Costs and Benefits

The team and the hours they put in will pay for the expected costs. Parts of the team include project manager, marketing, development, and business. The company will compensate the project manager for overseeing all teams and ensuring timely product development. The company will reward the marketing team for promoting the product and raising awareness. The coding team will receive payment for developing the app and ensuring its functionality and consumer safety. The business team will receive payment for securing partnerships with banks and attracting investors for the product.

Some other costs will include keeping a database running, having an app on the IOS app store, and paying for development environments. It costs money to keep a database in AWS, and it costs money to keep an app in the app store. The development environment could have a cost because, without a MacBook, it would be hard to code an IOS app.

The expected benefits for the team are getting money from a subscription-based service to use the app. It will cost money to use The Supreme Card, but the money the users will get back will be worth it for the users. The benefits the banks will get are that people will sign up for more credit cards and spend more money. The users will get more cashback and better understand what each credit card does.

## Constraints

One thing that may be a constraint is banks not partnering with us. If banks don't partner with us, it won't affect the app's functionality, but will affect how fast our app spreads. By partnering with banks, we aim to spread our app while building trust quickly and widely with users and ensuring their information remains secure. To ensure we get as many banks as possible, we need to ensure that the banks realize that this is the best thing they can do for themselves, and it will help them bring in more customers.

A constraint about the software must pull up an app to pay for something. This app isn't like an Apple wallet where you can press a few buttons to pull up the card to pay for it and open up a whole app to use your cards to pay. Although this is inconvenient, people will realize that opening an app will be worth the time because of how much money they save. It will also prompt users to share what type of transaction the user is about to do.

Another constraint about the software is that not every place can do Apple Pay. Without a tap-to-pay device, this software is useless. Although it is possible to create a physical card for this app, it is not in this project's scope. It may take a while, but soon, businesses will realize that tap-to-pay is the future of transactions, so eventually, all companies will have a tap-to-pay feature.

## Recommendation

After reading this document, we suggest downloading this application on any applicable devices. This action will ensure the application spreads to as many people as possible.

Document Overview

Now that I have established the problem and solution, the rest of the document will review how feasible this is and all the risks of doing this product. It will also review this app's functional and non-functional requirements. Then, it will review the use case diagram and its descriptions. Finally, it will explain the project's next steps and contain a conclusion of the complete document.

2.0 System Initiation

Project Initiation Request (PIR)

PIR-00000 *[PIR Number to be assigned by the Project Office]* Project Initiation Request (PIR) – Level1 v6.0

Project Name: The Supreme Card Student Name: Jonah Byther

**This Project Initiation Request (PIR) is to be completed for all requests expected to require over 40 hours of effort or over 4 weeks of total duration. For larger requests requiring over 40 person-days or estimated project costs greater than $5,000, this template is used to assess the product's feasibility and get approval to scope and plan the proposed project.**

**If approved, the Level 2 template (System Proposal: Part 1 and Part 2) must be completed.**

**NOTE: Sections 0-4 are required.** Section 5 is optional, but any ideas on estimating costs should be included. **Replace the *italic* prompts with your answers/information**. [Expand each section in this template as needed**.]**

**0. General Project Information**

|  |  |
| --- | --- |
| **Project Name:** | The Supreme Card |
| **Two Sentence Request Description:** | This card will combine all credit cards to make spending easier. No more manually choosing which card is best for you. |
| **Requested Launch Date(s):** | June 1st, 2024 |
| **Department(s) Affected By Project:** | Computer Science |
| **Project's Customers:** | Everyone with multiple credit cards |
| **Date Request Submitted:** | 4/28/2024 |

1. **Project Sponsor and Manager**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Project Sponsor** | |  | **Business Project Manager & Requestor** | |
| **Name:** | Andy Cameron |  | **Name:** | Jonah Byther |
| **Title:** | Professor |  | **Title:** | The Supreme Card |
| **Department:** | Computer Science - SPU |  | **Department:** | Computer Science - SPU |
| **Email:** | acameron@spu.edu |  | **Email:** | bytherj@spu.edu |

1. **Business Problem or Opportunity: The motivation for this request**

*Describe the problem or opportunity that you would like to solve. Include a simple, high-level description of this request's business problems or opportunities. Focus on the problem or opportunity, not the solution. Be sure to include any date or deadline-related dependencies or needs related to the project.*

| *The why and what? (Do not include 'the how' at this stage.)*  There is an issue of people not knowing what their credit card rewards and cashback look like. With this product, people won't have to know which of their credit cards gives the most cashback and rewards because this card will do it for them. This product is not a physical card; it is just a card you can add to your Apple wallet to simplify things. People also won't have to scroll through all their credit cards; they just have to use 1.  This app will connect the person's credit cards and help determine which card will be best to use when using the tap feature on Apple Wallet using the Supreme Card. By using this app, people will earn a lot more money back because of each card's different rewards. Banks will also be happy because people will buy more credit cards to get more rewards. |
| --- |

1. **Justification, Impact, and Importance**

*What is the financial impact and justification for this request? How will the investment of time, resources, and capital be returned to our company? (Please note any contractual or regulatory requirements associated with the request. If you have an NPV, IRR, or ROI calculation, please provide the link(s) in this section.)*

**Assumptions**

|  |
| --- |
| * Coding the app will take a while |
| * Advertising will be essential |

**Competitive Landscape / Context**

|  |
| --- |
| * Nerd Wallet |
| * Apple Wallet is jealous of the product |

**Tangible Return, Opportunity, or Value One Time On-Going**

|  |  |  |
| --- | --- | --- |
| * Monthly Subscription | $0 | $5 |
| * No ads | $1 | $0 |

**Intangible Benefits Impact or Value**

|  |  |
| --- | --- |
| * Increased customer morale because they are saving money | $0 |
| * Banks will get more customers because they want to save money | $0 |

1. **Product Requirements**

*The Project team will gather detailed requirements once the project is approved. Use this section to articulate the critical solution components to help scope the project's size and complexity. Do not describe how the solution will be implemented; instead, only list the functionality or results you expect to receive when the product is complete/delivered.*

* 1. **Must Haves**

|  |
| --- |
| * + 1. Easy-to-use app that will make it easy to add credit cards |
| * + 1. AI to determine which credit card will be the best to use |

* 1. **Could Haves** (Nice to Haves)

|  |
| --- |
| * + 1. A chat forum that will allow people to talk with each other |
| * + 1. AI chat box that will recommend credit cards based on spending habits |

* 1. **Won't Haves** (Don't Do's, aka Out of Scope)

|  |
| --- |
| * + 1. A physical card. |
| * + 1. Automatically find discounts and add them to the transaction. |

1. **Project Costs (Operating and Capital: Onetime and Recurring) [Optional]**

*This section is typically fleshed out after the requestor has submitted a PIR and received approval for the initial scoping effort. It captures the effort estimates, capital expenditures, and other costs associated with performing this work and creating the product/solution. If the submitter has thoughts or estimates on what these costs are or suggestions on how they might be estimated, please include those here. Add brief descriptions as needed.* ***Include at least 2 comments on your thinking around these items, even if you don't have specifics yet.***

**Labor Costs**

|  |  |  |  |
| --- | --- | --- | --- |
| **Type** | **Team(s) Affected** | **Low (hrs)** | **High (hrs)** |
| Analysis & Design |  | 0 | 0 |
| Development |  | 0 | 0 |
| Testing and Quality Assurance |  | 0 | 0 |
| Systems Integration |  | 0 | 0 |
| Deployment |  | 0 | 0 |
| Support and Maintenance |  | 0 | 0 |
| Sales and Marketing |  | 0 | 0 |
| **Total** |  | **0** | **0** |

| Comments: *Include notes here on what the costs are or how they can be estimated. (optional)* |
| --- |

**Capital Costs** (Equipment, Software, Licenses, …)

|  |  |  |
| --- | --- | --- |
| **Description** | **Quantity** | **Cost ($)** |
| *Item 1* |  | $ 0 |
| *Item 2* |  | $ 0 |
| **Total** |  | $ 0 |

| Comments: *Include notes here on what these are or how they can be estimated. (optional)* |
| --- |

**Maintenance Costs** (Costs after the product is live)

|  |  |  |
| --- | --- | --- |
| **Type** | **Hours / Month Low** | **Hours / Month High** |
| System / User Support | 0 | 0 |
| Business / Process Support | 0 | 0 |
| **Total Support & Maintenance** | **0** | **0** |

3.0 Feasibility Assessment

Introduction

The feasibility analysis will cover the Technical, Resource, Schedule, Organizational, Legal, and Contractual areas of The Supreme Card. Each area of feasibility will be rated either high, medium, or low risk and very, technically, or not feasible.

Feasibility Analysis

**Technical Feasibility**

This project brings some new things to learn, so it is technically feasible and has high risk.

* Making an IOS app with all the features is technically feasible because the developers haven't coded with Swift before but can learn it quickly.
* Making a wallet like Apple Wallet is technically feasible but will be hard to implement, and the risk is high.
* Training an AI to choose the best card will be very feasible. Open AI exists now, so training it won't take very long.

This project size is technically feasible and has a high risk

* Getting banks on board will take a while, and if they don't partner with us, the project won't go far, so it is high-risk
* Having the app targeted towards people with multiple credit cards is bold because that is a percentage of the population

**Resource Feasibility**

The resource feasibility is very feasible, and it has a medium risk. There are costly things that are easy to identify and put on paper, and the revenue generated is also easy to locate. Paying the employees, the app on the Apple Store, and marketing are easily identifiable costs. Getting revenue from our subscription and some money back when they use our app is an easy and feasible way to generate revenue.

**Schedule Feasibility**

The schedule feasibility is very feasible, and it has a low risk. There is nothing that would legally constrain people's schedules. The employees have a very flexible number of hours they need to work and when they need to work them.

**Organizational Feasibility**

This organizational feasibility is very feasible and has a medium risk. This app aims to increase cashback on purchases for people with multiple credit cards. Having a simple app that connects credit cards is a simple concept. Having a team for development, marketing, and business, as well as a team manager, will make the organization of this project very feasible.

**Legal Feasibility**

The legal feasibility is technically feasible and high risk. We are dealing with people's money, so if we get hacked, it is our fault, and we could be in a lot of legal trouble. We also need to know how hard it is to manipulate the NFC chip to ensure they can tap to pay.

**Contractual Feasibility**

The contractual feasibility is very feasible, and there is a medium risk. It should be easy to make a contract and have employees stick to it, but there is a risk that an employee doesn't.

Additional Comments

We should make sure the development team has the right development environment, and we could hire a mentor to help the team learn Swift.

Conclusion

The overall feasibility of this project is technically feasible and of medium risk. The most significant risk is dealing with people's money and how we are liable if we get hacked. It is technically feasible; we must ensure the tap feature works with the credit cards on the app. The cost of the development and marketing of the app is low risk, so the project averages out to medium risk.

4.0 Requirements Definition

Provide a text overview of system services and behavioral properties. It will have a combined audience, including technical (developer) and non-technical (user/client) readers.

Introduction

This section deals with the functional and non-functional requirements of this app. The functional requirements are the requirements that go over how the app works. The non-functional requirements are the requirements detail how the app will perform.

Functional Requirements

* **Enter credit cards:** The app will require users to input their credit cards. Once the user inputs their credit cards, the app can store them in the database. Once their card is entered, they will be able to click the “Pay” button.
* **AI chooses card:** AI will pick a credit card for the user to use. Once the AI determines which credit card is best to use, it will choose that one, and the user will use the tap feature on their phone and start payment immediately. This AI will take into consideration the user’s preferences.
* **Pay for subscription:** Users must pay a monthly subscription to use the app. When users pay for their subscription, they will use the app, input credit cards, and use the implemented AI. Without paying for a subscription, the user will not be able to use any of the features in the application.
* **Ask for support:** There must be a way to contact customer support. If a user is using the app and encounter an issue with the app, they should be able to contact someone working in customer support. The user can either all the company to speak with an employee in real time, or they can email the company to receive an email within two hours.
* **Redeem card rewards:** There should be a feature in the app in order to redeem each credit card's rewards. It'll make access to rewards easier for the user. The user will be able to redeem all rewards from all their credit cards straight from the app.

Data Requirements

The development team needs a functional database. This database will contain all the credit card details of each user’s credit cards, so it is our responsibility to keep them secured. If this database is not secured, there is a chance for it to be hacked into, and it will be our fault if the data gets leaked, which could lead to a lot of legal trouble.

The user needs to input their credit cards in order for the app to work for them. If the user does not input their credit card in the app, the AI won’t be able to help them choose the right credit card to use for the transaction.

The development team also needs the data from the banks in order to have all the rewards for each credit card on the app. If we do not have all the necessary bank data in our app, there is no way to have all the information needed to help users redeem all their rewards.

Non-functional Requirements

* It must be a simple UI that is easy to understand and navigate. If the UI isn't simple, people won't use the app because it requires too much effort.
* We must store users' credit cards in a secure database. We don't want data breaches because that could cause serious legal trouble.
* It will be simple to redeem cashback rewards and easy to see all the cashback you have gotten during the month and year.

5.0 Requirements Model

Introduction

This diagram shows all of the necessary interactions that will happen between the user and the company through the system. Each bubble represents something that will happen in the system. When it says <<include>>, it means that the bubble that is at the end of the arrow will not happen until the bubble at the beginning of the bubble happens. When it says <<extend>>, the bubble at the start of the arrow will only happen if something from the other bubble happens. The stick figures on the left are the users that are the consumers of the app, and the stick figures on the right are the employees of the company and other businesses.

Use-Case Diagram A diagram of a credit card

Description automatically generated

Use-Case Descriptions

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Name**: Enter Credit Cards | | **ID**: 1 | **Importance**: Will have a simple UI, should have an account to remember all credit cards. |
| **Primary Actor**: User | **Use Case Type**: Detail, Essential | | |
| **Supporting Actors:** Banks | | | |
| **Stakeholders and Interests**:  User: The user has to input their credit cards so the app can choose which is best for them.  Banks: The banks that have their credit card inputted will have their credit card used more. | | | |
| **Brief Description**:  When users open the app and pay for the subscription, they will be asked to input a credit card. After inputting a credit card, they will be taken to the home screen, with a button to add more credit cards. | | | |
| **Trigger**:  When a user first pays for the subscription or the user presses the "Add Cards" button,  **Type** (mark one): \_ X External \_\_\_ Temporal | | | |
| **Relationships**:  **Association**: There are no associations between the  **Include**: "Pay for Subscription" includes this use-case.  **Extend**: It extends to "AI Choses credit card "  **Generalization**: N/A | | | |
| **The Normal Flow of Events**:   1. The user pays for the subscription 2. The user enters a credit card 3. There is an option to add more credit cards | | | |
| **Sub-flows**:   1. The user has to pay a fee to use the app 2. The user is prompted to enter a credit card 3. There is a button on the home screen to add more credit cards | | | |
| **Alternate/Exceptional Flows**:  In step 2, if the user does not have a credit card:  2.1 The user is asked if they have a credit card  2.2 If the user does not have a credit card, they are asked to pause their subscription | | | |
| **Special Requirements:**  Security   1. The user's credit cards need to be secure in a database 2. The user needs to cancel their credit cards in case they are stolen   User Interface   1. A big, simple button is needed to easily add a credit card.   Performance   1. Needs to add credit cards to the system in 5 minutes | | | |
| **To do/Issues:**   1. We need to have a robust database so people's credit cards don't get stolen 2. We need to make sure that someone doesn't enter the same credit card twice   What happens if our database gets hacked and the credit card information is stolen? | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Name**: AI chooses credit card | | **ID**: 2 | **Importance**: Will have a trained AI, should have custom AI settings, could have two differently trained AI, won't have AI chatbot |
| **Primary Actor**: User | **Use Case Type**: Detail, Essential | | |
| **Supporting Actors:**  Banks, Customer Support | | | |
| **Stakeholders and Interests**:  Users must trust that the AI has received the correct training and that using it will cause greater rewards than not using the app.  Banks: If a bank has rewards for a specific category, the AI will choose their card to pay for the transaction, and then they will get more people to open an account with them. | | | |
| **Brief Description**:  When the user goes to pay for an item, they open the app and click a button that will say "Pay", and it will ask the user what type of transaction they are doing. After they choose the transaction, the card(s) that provide the most cashback will pop up and be ready to tap. | | | |
| **Trigger**:  A user is ready to pay for a transaction  **Type** (mark one): X External \_\_\_ Temporal | | | |
| **Relationships**:  **Association**: There is an association between this use case and a software engineer  **Include**: N/A  **Extend**: This use case has an extension with the "Enter Credit Cards" use case.  **Generalization**: N/A | | | |
| **The Normal Flow of Events**:   1. The user opens the app 2. The user clicks the "Pay" button 3. The user clicks on the transaction type 4. The most optimal credit card pops up 5. The user uses the tap feature to pay | | | |
| **Sub-flows**:   1. The user uses our app to pay 2. The user finds the "Pay" button so they can pay 3. A list of various transaction types pops up, and the user chooses one 4. The AI selects the credit card that gets the most cash back for this transaction 5. The chosen credit card pops up on the user's phone so they can use the tap feature | | | |
| **Alternate/Exceptional Flows**:  In step 4, if the user has pre-set preferences:  4.1 The AI considers the user's preferences  4.2 If the user's preferences are a different recommendation than the AI would typically do, the app brings up two cards that are labeled "AI recommended" and "User's preferred," and the user can choose either of the two cards | | | |
| **Special Requirements:**  Performance   1. AI has to choose a card within 1 second 2. AI has to choose the most optimal card   User Interface   1. It has to have clear labels on everything   Security   1. Ensure that no one can breach the database while using this feature. | | | |
| **To do/Issues:**   1. Ensure that you train the AI to choose the right credit card.   What happens if the AI chooses the wrong credit card and someone wants to use a different card than the one the AI chooses? | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Use Case Name**: Ask for Support | | **ID**: 3 | **Importance**: We will have a dedicated employee for customer support, should have a link directly from the app, could have employees have direct access to users' accounts, and won't have AI in customer support. |
| **Primary Actor**: Customer Support | **Use Case Type**: Detail, Essential | | |
| **Supporting Actors:**  User | | | |
| **Stakeholders and Interests**:  User: If the user is having difficulties with the app, they will contact customer support to resolve the issue  Customer Support: It is the employee's job to satisfy the customer's needs  Banks: If the user is having issues with the app, they will not use the app, and the user may not use a specific bank's credit card | | | |
| **Brief Description**:  If the user is having trouble with the app, there will be a "Contact Support" button on the app's home page, and they can either call or email the company and get a response. | | | |
| **Trigger**:  **Type** (mark one): X External \_\_\_ Temporal | | | |
| **Relationships**:  **Association**: There is an association between this use case and the user and customer support  **Include**: N/A  **Extend**: N/A  **Generalization**: N/A | | | |
| **The Normal Flow of Events**:   1. The user is having an issue with the app 2. The user presses the "Contact Support" button 3. The user can either call the number or send an email | | | |
| **Sub-flows**:   1. The user is having trouble adding a credit card 2. The user goes to the home page and presses "Contact Support" 3. The user can either call an employee or send an email to the employee | | | |
| **Alternate/Exceptional Flows**:  In step 3, if the user picks to call the number:   * 1. The customer service representative puts the user on hold.   2. A customer support employee will answer the phone when available to discuss the issue. | | | |
| **Special Requirements:**  Interaction   1. The customer support employee must ensure they treat the customer with respect   Performance   1. If a customer emails the company, they will receive a response within 2 hours 2. If a customer calls the company, they will be on hold for less than 5 minutes | | | |
| **To do/Issues:**   1. We need to make sure the employee is skilled in customer service   What happens if the employee can't fix the user's issues? | | | |

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| **Use Case Name**: Pay for Subscription | | **ID**: 4 | **Importance**: Will have all payment methods, should have easy method to pay, could have this as only payment, won't have users use this app without subscription |
| **Primary Actor**: User | **Use Case Type**: Overview, Essential | | |
| **Supporting Actors:**  Customer Support | | | |
| **Stakeholders and Interests**:  User: Users have to pay a monthly subscription to use the app  Software Engineer: One primary way of getting income  Customer Support: One primary way of getting income | | | |
| **Brief Description**:  Once the user downloads the app, it will prompt them to pay $5 a month to use the features. | | | |
| **Trigger**:  The user downloads and opens the app.  **Type** (mark one): X External \_\_\_ Temporal | | | |
| **Relationships**:  **Association**: There is an association between this and the user  **Include**: It includes "Redeem card rewards" and "Enter Credit Cards"  **Extend**: N/A  **Generalization**: N/A | | | |
| **The Normal Flow of Events**:   1. The user downloads the app 2. Upon opening the app, the app prompts the user to pay a monthly subscription 3. The user pays and has access to all features | | | |
| **Sub-flows**:   1. The user goes to the app store and downloads it 2. When users open the app, the app presents them with a screen to pay a monthly subscription 3. The user can now use all the features in the app | | | |
| **Alternate/Exceptional Flows**:  In step 3, if the user does not pay the subscription:   * 1. The user opens the app and can't access any of the features   2. The user uninstalls the app | | | |
| **Special Requirements:**  Performance   1. As soon as the user pays the subscription, they gain access to all features   User Interface   1. The payment is easy and includes all payment methods | | | |
| **To do/Issues:**   1. We need to make sure only people who pay can access the features   What happens if a user forgets to cancel the subscription? | | | |

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| **Use Case Name**: Redeem Card Rewards | | **ID**: 5 | **Importance**: You will have a place to redeem rewards, should have a way to redeem all rewards, could have extra rewards, and won't have automatic redeeming rewards. |
| **Primary Actor**: User | **Use Case Type**: Detail, Essential | | |
| **Supporting Actors:**  Banks | | | |
| **Stakeholders and Interests**:  User: The user gains their money back this way and is the main reason to download the app  Banks: The banks will make it accessible to redeem rewards through this app and will get more customers, so they get more rewards | | | |
| **Brief Description**:  When a user wants to redeem their rewards, they go to a specific tab on the app, and there it will show all the rewards they can redeem on each of their credit cards. | | | |
| **Trigger**:  The user clicks on the "Redeem Rewards" tab  **Type** (mark one): X External \_\_\_ Temporal | | | |
| **Relationships**:  **Association**: There is an association between this and the banks  **Include**: It includes the "Pay for Subscription" use case  **Extend**: N/A  **Generalization**: N/A | | | |
| **The Normal Flow of Events**:   1. The user made a purchase 2. The user clicks on the "Redeem Rewards" tab 3. The user can choose which rewards to redeem | | | |
| **Sub-flows**:   1. The user had made a purchase from anywhere 2. The user clicks on the "Redeem Rewards" tab in order to see all rewards 3. The user can pick a specific credit card to choose the rewards from the card | | | |
| **Alternate/Exceptional Flows**:  In step 1, if the user hadn't made a purchase recently:   * 1. The user sees all previous purchases   2. The user sees all the rewards they can redeem from their recent purchases | | | |
| **Special Requirements:**  Performance   1. When the user redeems their rewards, they immediately get it transferred to their bank account   User Interface   1. It needs to show all the credit cards and their rewards | | | |
| **To do/Issues:**   1. We need to make sure that all rewards are available to see from the app   What happens if a user tries to redeem rewards and it doesn't go through? | | | |

6.0 System Evolution

One thing that is out of this project's current scope is a physical card. However, it is possible to manufacture a physical card. It would be helpful for some people to have a physical card to use for payments. However, this may become impractical because the world is turning into a digital wallet world. More and more companies are implementing the tap feature for payments. A physical card would be helpful for some people, but it would become impractical and may not be worth investing in.

Another thing that is out of this project's current scope is the ability to hold the power button to bring up The Supreme Card, similar to Apple Wallet. Holding down a button and having The Supreme Card ready would be a good idea. It is a pain to turn on a phone, unlock it, press on an application, and then click "ready to pay." Holding one button instead of doing these steps would save the consumer time. Although it is challenging to implement this into the phone, it is still possible. This feature would directly compete with Apple Wallet and could eventually take over the digital wallet landscape.

Something else beyond the scope is turning this into an Android app. Currently, it is only available on IOS, but in the future, it could be available on Android, too. It is not currently in this project’s scope because the software engineers would have to learn another language, which is not time efficient.

7.0 Conclusions and Recommendations.

The Supreme Card simplifies owning multiple credit cards and choosing the correct one. The Supreme Card will be the future of the digital wallet because there are only benefits to using this app. Using AI will ensure that this product stays relevant for years to come. People are unsure how to use each credit card and redeem the rewards on them. People will get more rewards from transactions they otherwise wouldn't be able to get without this app. This simple app will revolutionize the digital wallet, and everyone will use it.

The user will need an iPhone and an internet connection to use this app. An android version of this app may come to the Play Store, but that is not feasible for this project. For a low $5 a month, users will save more than $5 a month by getting a lot of money back through this app.

# **Appendices**

# **Glossary**

Swift: A programming language.

AI: Artificial Intelligence.

NFC Chip: A chip that allows tap features.

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