

**GNG1103[A] Proj 13 Deliverable F**

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**Abstract:**

This document outlined the team's first prototype, as well as an updated prototype testing plan, and feedback provided on the current prototype.

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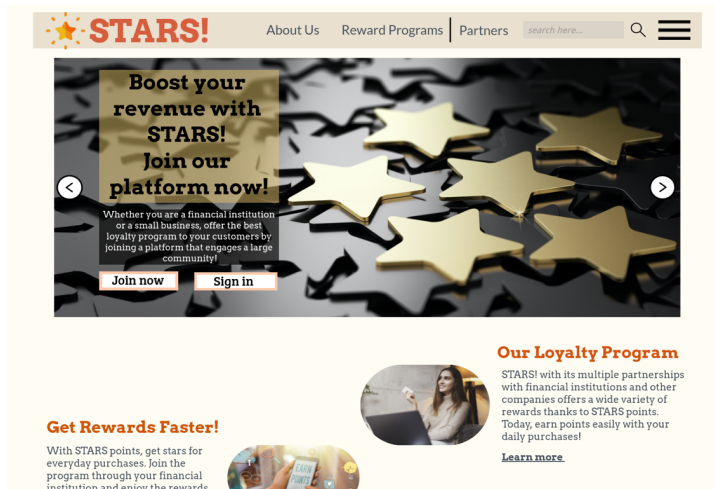
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## **1. Introduction:**

This document will discuss the team's first prototype, as well as provide a thorough analysis of what the prototype does, as well as the prototype against the testing plan. This document will explore feedback received from potential users and clients, as well outline a plan for the next prototype.

## 2. Prototype:

The first prototype focused on allowing the conversion of points earned between businesses. From a user point of view, they can sign onto the platform, and convert points from business A (ex: Shoppers Drug Mart) to business B (ex: Scene points). The prototype also allows for users to see what rewards they are eligible for with the conversion.



This is the homepage of the platform where small businesses and retailers are invited to join the platform or sign in. The prototype only displays how businesses can join the platform but it is intended to allow customers to join and consult their profile, convert their points and check how many points they got

The platform invites companies/retailers/partners to sign up. The client then makes a choice between the different price plans offered. The mock-up still has to display what are the advantages of taking premium

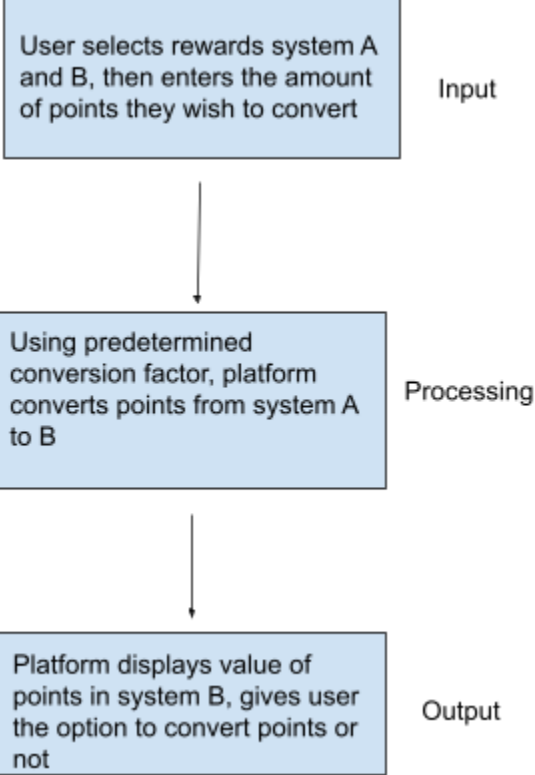
Number of members	Base Plan	Premium Plan
D-A	1	15
A-B	15	150
B-C	150	1500
C-D	1500	15000

This is the homepage/UI of the platform. On the home screen, the client can edit his profile, define his reward program, or view his profits.

This is only a mockup of what the homepage of the client will look like but the users (client's customers) will have a similar UI where they will be able to convert their points from one business to another

In the profit tab, the profits of the client will be displayed using **Power Bi**. All data regarding customers, loyalty program will be collected to show profits and derive insights to boost productivity and profits

In this page, users (clients' customers) are able to convert their points from one business to another. The users select one business for which the total of points is displayed. They choose the business for which they want to convert their points. There is a **conversion rate** between each business (this can be done using **Excel** to initialize the conversion rate). The platform will then display the points converted and the user can proceed to the conversion of points.



<https://marvelapp.com/prototype/69f0840>

## Prototype tests

<b><i>Test ID</i></b>	<b><i>Test Objective (Why)</i></b>	<b><i>Results</i></b>
<b>1</b>	Have a prototype that allows a business / commerce X to be able to register and join the platform. It is important to involve small businesses in our platform, which is why the platform must necessarily attract potential partners. The prototype will be for the purpose of learning and communicating to receive feedback	The prototype does allow a business to sign up, and provides a price plan based on the size of their business. Small businesses can be involved, as well as larger ones. The prototype passes test 1.
<b>2</b>	Configure a platform that offers the business two subscription plans. It is important to monetize the platform so depending on the business and its clientele, the platform must be able to come up with a plan that suits the business.	The prototype offers 2 different pricing plans, a base one and a premium one. Therefore, the prototype offers plans based on client base size, and passes test 2.
<b>3</b>	The prototype must be able to show the interactive side between the platform and the partner to ensure a good user experience. This prototype is therefore for communication purposes in order to receive feedback and optimize the interface	N/A
<b>4</b>	The prototype allows user A's points to be converted from business X to business Y. In other words, it efficiently uses points earned in one business into another. This is a goal to measure the performance of the precision of the platform. This objective is more than important because it plays on the good functionality and the performance of the final product. Without good precision, the platform cannot be on the market	The prototype allows bank customers to convert points from business A to business B, in a precise manner using an algorithm. Therefore, the prototype passes test 4
<b>5</b>	The prototype configures the prerequisites, i.e., discounts, participating financial institutions, reward types, payment methods and various rules before assigning users and loyalty cards. This is another essential objective in the success of the platform. Any loyalty program platform must be able to identify this information in advance. This test is for learning	n/a
<b>6</b>	The prototype will have to execute in a fast way, and without latency time the tasks which are requested of it. It is essential that for the proper functioning of the platform, that it can handle large amounts of data without interruption or crash. This test is therefore for de-risking.	n/a



### 3. Prototype testing plan

<b><i>Test ID</i></b>	<b><i>Test Objective (Why)</i></b>	<b><i>Description of Prototype used and of Basic Test Method (What)</i></b>	<b><i>Description of Results to be Recorded and how these results will be used (How)</i></b>	<b><i>Estimated Test duration and planned start date (When)</i></b>
<b>1</b>	Have a prototype that allows a business / commerce X to be able to register and join the platform. It is important to involve small businesses in our platform, which is why the platform must necessarily attract potential partners. The prototype will be for the purpose of learning and communicating to receive feedback	The prototype will be focused. This type of prototype was chosen because our prototype is focused on one of the functionality of our subsystem and not on the entire subsystem. Also, since the platform is online, the prototype will not be physical but rather analytical because we will create an online interface that will be modifiable. The prototype will consist in creating an interface that will invite businesses and companies to come and register and open an account on our platform. This prototype can be done from a free online mock-up website after doing several research on different platforms that have similarities to the one we want to create.	The main result that will come out of this prototype is the ease of accessibility and attraction of the platform to future partners. Ideally the prototype will have all the useful information that will allow a business to register.	This test should take 1 day to complete as it is only a mock-up
<b>2</b>	Configure a platform that offers the business two subscription plans. It is important to monetize the platform so depending on the business and its clientele, the platform must be able to come up with a plan that suits the business.	Like Test 1, this test will also be focused and analytical for the same reasons as mentioned above. It will be, like test 1, made as a mock-up that will show how the business can choose between two subscription plans after opening an account. This prototype will be free.	The major result will be, like test 1, to have a prototype whose result will clearly be a good display of the different plans offered by the platform. We will thus note how the display of offers will be influential.	This test should take 1 day to complete as it is only a mock-up
<b>3</b>	The prototype must be able to show the interactive side between the platform and the partner to ensure a good	This prototype will be analytical because it will be done using software and will be comprehensive because it will bring together several	The best result in this test is the good interaction between the software and the user. We will note how the interaction takes place, that	This test should take 4 days. It depends on the first two tests mentioned above. This duration is due to the

	<p>user experience. This prototype is therefore for communication purposes in order to receive feedback and optimize the interface</p>	<p>attributes of our subsystem which is the accessibility of our platform to small businesses. This prototype will combine tests 1 and 2 by implementing the platform's interaction with partners. The prototype will therefore be made from PowerApps and Excel to find an algorithm capable of forming an interaction with the user.</p>	<p>is to say, when the user opens his account and chooses an offer to when he can access his files, his profile and can manage his program. It will also allow us to see how the software will operate. This prototype is the most important of all because it encompasses all the parameters important to the success of the accessibility criterion.</p>	<p>fact that an algorithm has to be determined in order to have an interaction between the program and the user which might take some time.</p>
4	<p>The prototype allows user A's points to be converted from business X to business Y. In other words, it efficiently uses points earned in one business into another. This is a goal to measure the performance of the precision of the platform. This objective is more than important because it plays on the good functionality and the performance of the final product. Without good precision, the platform cannot be on the market</p>	<p>This test is essentially comprehensive because it brings together several aspects of our precision point conversion subsystem. We want to see how the subsystem will work as a whole. For this prototype, we will be using PowerApps and probably Power Automate to generate an algorithm for converting points. A mock-up will also be made to clearly present what the interface should show. A lot of research will have to be done on the programming for the conversions and the interactive side.</p>	<p>The information to be gleaned from this prototype is its precision in converting points from one business to another. As mentioned in the objectives, it is imperative that the results are positive. To ensure that a user can take advantage of his points in each store (if he has previously subscribed to this offer), the points must be conveniently converted and therefore our results must be conclusive.</p>	<p>This test should take 5 days for completion as it requires a lot of research to come up with a good algorithm that gives accurate results. This task is independent of others.</p>
5	<p>The prototype configures the prerequisites, i.e., discounts, participating financial institutions, reward types, payment methods and various rules before assigning users and loyalty cards. This is another essential objective in the success of the platform. Any loyalty program platform must be able to identify this information in advance. This test is for learning</p>	<p>This test is focused because it is focused on one of the attributes of data accuracy in the platform. We want to be able to configure a prototype where we will be able to insert certain information beforehand. This information can then be stored in the platform for financial institutions. The prototype, thanks to algorithms, will allow financial institutions to define their rules and limits of the loyalty program, assign users (their customers) and assign loyalty cards. We will still use PowerApps to</p>	<p>The result of this prototype is its ability to store certain data entered by administrators and the ability of the prototype to give access to financial institutions to perfectly insert their data and manage their customers. The prototype will clearly have the key parameters, the relevant information for the banks and will adopt the prerequisites that have been set for it.</p>	<p>This test should take 3 days to complete. It will depend on no other task</p>

		perform this task.		
6	The prototype will have to execute in a fast way, and without latency time the tasks which are requested of it. It is essential that for the proper functioning of the platform, that it can handle large amounts of data without interruption or crash. This test is therefore for de-risking.	This model will be focused because we will focus on reducing the risk of crash or slowness of the system. We also want to focus on the performance of the platform. The test will always be done with PowerApps because it can collect a lot of data for a simple prototype. It will be a question of implementing several data and testing the responsiveness of the platform when the number of data increases	The most important thing is to be able to measure the speed of the platform and its response time in order to better assess its performance. We will collect the test results to compare them to norms and thus assess whether the test is effective or not. These records will be really important in the success of the project	This test should take a day to complete as it only asks to evaluate the performance of the platform. It is dependent on tests 3 and 4.

#### **4. Prototype feedback**

This feedback has been gathered from potential users, such as current loyalty rewards program members, bank users, etc. Refer to appendix for individual prototypes

Hazim's Prototype:

- The prototype has a good algorithm
- The prototype is not user friendly
- The prototype was hard to follow, needs adjustment
- Prototype currently has no way of taking user spending data
- The prototype demonstrates a good, well thought-out system
- The prototype shows potential for handling a lot of data

Annabelle' Prototype:

- The UI for the prototype is not very user friendly
- The prototype is easy to follow
- The prototype is well mapped out, very explanatory

Oumou's Prototype:

- The prototype is very in depth
- The prototype is very easy to follow, easy to input stuff
- The prototype provides a plethora of options to convert points into
- Very user friendly
- Provides a clear way to convert points

Michael's Prototype

- The prototype is very hard to follow
- The prototype is not detailed enough
- The prototype is not user-friendly

Caiyuan's Prototype:

- Very streamlined, easy to follow.
- Not very detailed, barebones.
- The prototype should have more description
- Good start, adding more detail can help

## **5. Conclusions and Recommendations:**

In conclusion, the first prototype was very successful, and passed the prototyping tests. The following deliverable will outline the second prototype, which will focus on allowing smaller businesses to sign up

## 6. Appendix

Hazim:

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2		Business Name	Amount spent	Point Conversion Rate		Points Gained		Total Points Gained				
3		Mcdonalds	\$262	0.001		0.262		4.919				
4		Cineplex	\$323	0.005		1.615						
5		Amazon	\$521	0.002		1.042						
6		Sara's Bakery	\$80	0.025		2.000						
7												
8												
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27												
28												
29												

The system tracks which business a bank customer went to, and puts their name down under this column

The system receives the amount of money the bank customer spent at Business X

Using the Point Conversion Rate, the system calculates the points gained

The system sums up the total points gained that day and stores it

The spreadsheet takes the Total Points Gained and lists them by day then sums them up

The spreadsheet uses a base template to create an identical Sheet as this one for every day

Person 1 Accumulated Points | 2021\_11\_03 | 2021\_11\_02 | Base Template

	A	B	C	D	E	F	G	H	I	J	K	L
1												
2		Business Name	Amount spent	Point Conversion Rate		Points Gained		Total Points Gained				
3						0.000		0.000				
4						0.000						
5						0.000						
6						0.000						
7						0.000						
8						0.000						
9						0.000						
10						0.000						
11						0.000						
12						0.000						
13						0.000						
14						0.000						
15						0.000						
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21						0.000						
22						0.000						
23						0.000						
24						0.000						
25						0.000						
26						0.000						
27						0.000						
28						0.000						
29						0.000						

This is the Base Template, it is the same as the 2021\_11\_02 sheet, just not filled out.  
This is the sheet that is used to make the identical sheet which is named as YYYY\_MM\_DD

Person 1 Accumulated Points | 2021\_11\_03 | 2021\_11\_02 | Base Template

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2		Date	Points Gained		Total Points Gained								
3		2021-11-02	4.919		4.919								
4		2021-11-03											
5		2021-11-04											
6		2021-11-05											
7		2021-11-06											
8		2021-11-07											
9		2021-11-08											
10		2021-11-09											
11		2021-11-10											
12		2021-11-11											
13		2021-11-12											
14		2021-11-13											
15		2021-11-14											
16		2021-11-15											
17		2021-11-16											
18		2021-11-17											
19		2021-11-18											
20		2021-11-19											
21		2021-11-20											
22		2021-11-21											
23		2021-11-22											
24		2021-11-23											
25		2021-11-24											
26													
27													
28													
29													

The Points gained values are transferred from their respective sheets, and then accumulated into Total Points Gained

Microsoft Visual Basic for Applications

File Edit View Insert Format Debug Run Tools Add-Ins Window Help

Project - VBAProject

VBAProject (Prototype1-Hazim.xlsm)

- Microsoft Excel Objects
  - Sheet1 (Person 1 Accumulated Points)
  - Sheet2 (2021\_11\_02)
  - Sheet3 (Base Template)
  - Sheet4 (2021\_11\_03)
- ThisWorkbook
- Modules

Properties - ThisWorkbook

ThisWorkbook Workbook

Alphabetic Categorized

(Name)	ThisWorkbook
AccuracyVersion	0
AutoSaveOn	False
AutoUpdateFrequency	0
ChangeHistoryDuration	0
ChartDataPointTrack	True
CheckCompatibility	False
ConflictResolution	1 - xUserResolution
Date1904	False
DisplayDrawingObjects	-4104 - xDisplayShapes
DisplayInkComments	True
DoNotPromptForConvert	False
EnableAutoRecover	True
EncryptionProvider	
EnvelopeVisible	False
Final	False
ForceFullCalculation	False
HighlightChangesOnScreen	False
InactiveListBorderVisible	True
IsAddin	False
KeepChangeHistory	True
ListChangesOnNewSheet	False
Password	*****
PersonalViewListSettings	True
PersonalViewPrintSettings	True

Prototype1-Hazim.xlsm - modSheets (Code)

(General) AddDayWkst

```

Sub AddDayWkst ()
    Dim ws As Worksheet
    Dim wsm As Worksheet
    Dim strName As String
    Dim bCheck As Boolean

    On Error Resume Next
    Set wsm = Sheets("Base Template")
    strName = Format(Date, "yyyy-mm-dd")
    bCheck = Len(Sheets(strName).Name) > 0

    If bCheck = False Then
        'add new sheet after Instructions
        wsm.Copy After:=Sheets(1)
        ActiveSheet.Name = strName
    End If

    Set ws = Nothing
End Sub

```

This is the code used to create the daily worksheets in excel

Prototype1-Hazim.xlsm - ThisWorkbook (Code)

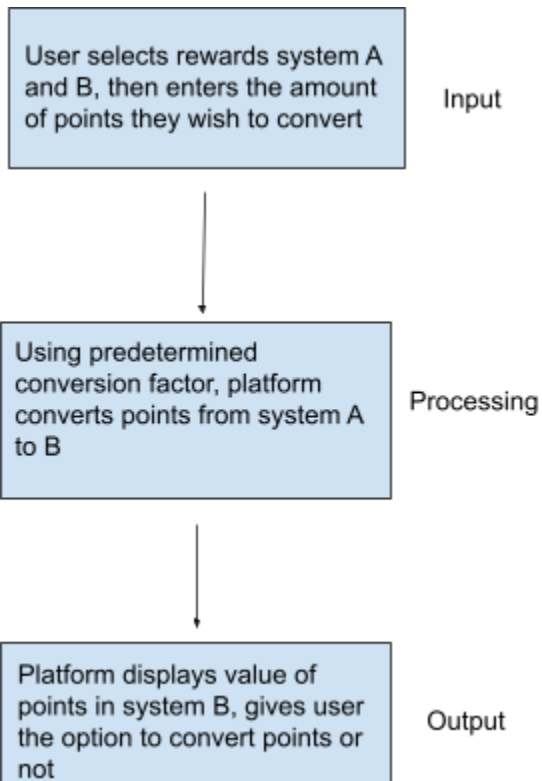
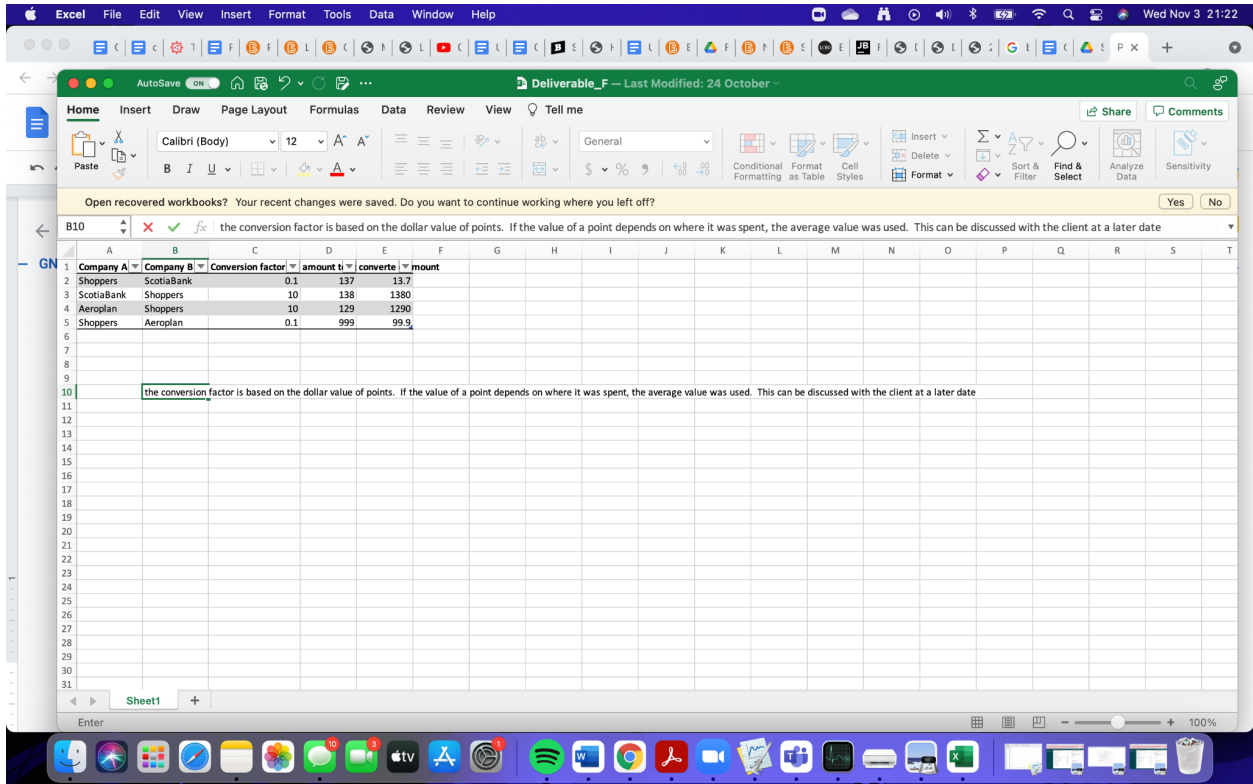
Workbook Open

```

Private Sub Workbook_Open()
    AddDayWkst
End Sub

```

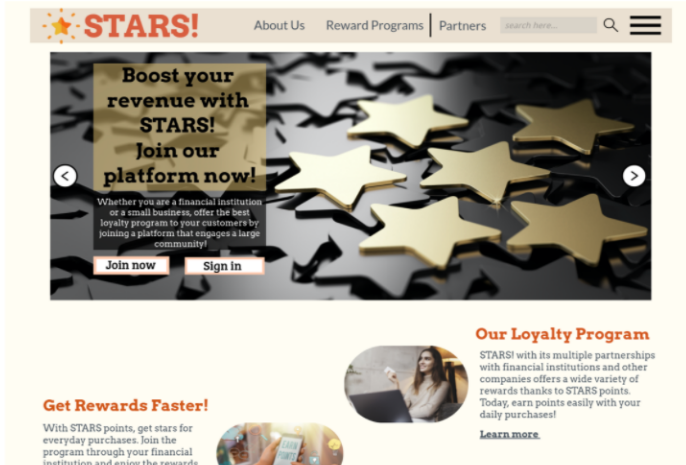
Annabelle:



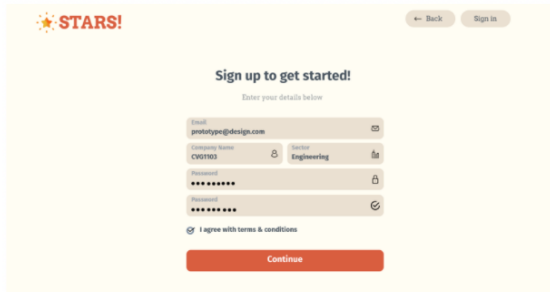




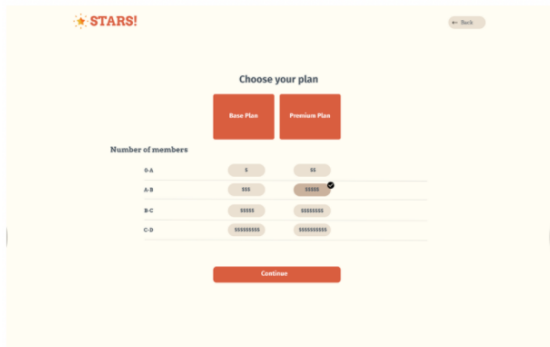


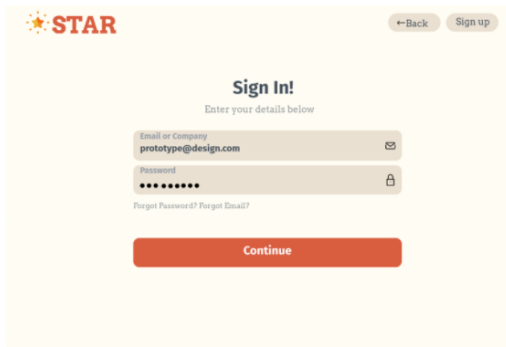


This is the homepage of the platform where small businesses and retailers are invited to join the platform or sign in. The prototype only displays how businesses can join the platform but it is intended to allow customers to join and consult their profile, convert their points and check how many points they got



The platform invites companies/retailers/partners to sign up. The client then makes a choice between the different price plans offered. The mock-up still has to display what are the advantages of taking premium





**STAR**      ←Back    Sign up

**Sign In!**  
Enter your details below

Email or Company  
prototype@design.com

Password  
●●●●●●●●

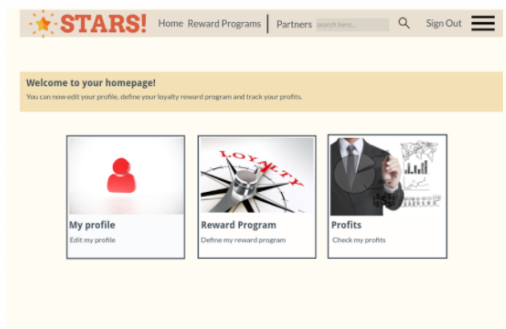
Forgot Password? Forgot Email?

**Continue**

This is the homepage/UI of the platform. On the home screen, the client can edit his profile, define his reward program, or view his profits.

This is only a mockup of what the homepage of the client will look like but the users (client's customers) will have a similar UI where they will be able to convert their points from one business to another

In the profit tab, the profits of the client will be displayed using **Power BI**. All data regarding customers, loyalty program will be collected to show profits and derive insights to boost productivity and profits



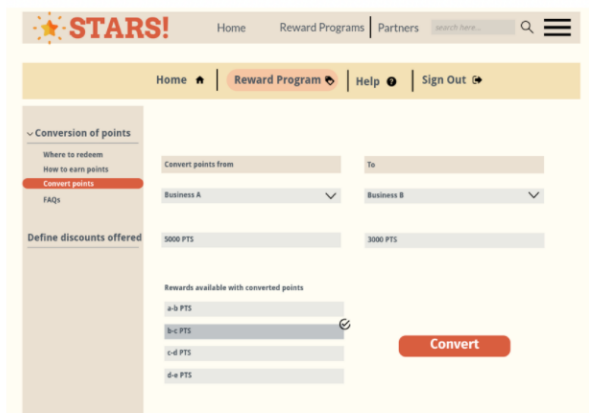
**STARS!** Home Reward Programs Partners search here... Sign Out

Welcome to your homepage!  
You can now edit your profile, define your loyalty reward program and track your profits.

**My profile**  
Edit my profile

**Reward Program**  
Define my reward program

**Profits**  
Check my profits



**STARS!** Home Reward Programs Partners search here... Sign Out

Home | **Reward Program** | Help | Sign Out

Conversion of points

Where to redeem  
How to earn points  
**Convert points**  
FAQs

Define discounts offered

Convert points from: Business A    To: Business B

3000 PTS    3000 PTS

Rewards available with converted points

a-b PTS  
 b-c PTS  
 c-d PTS  
 d-a PTS

**Convert**

In this page, users (clients' customers) are able to convert their points from one business to another. The users select one business for which the total of points is displayed. They choose the business for which they want to convert their points. There is a **conversion rate** between each business (this can be done using **Excel** to initialize the conversion rate). The platform will then display the points converted and the user can proceed to the conversion of points.

## **7. Wrike Snapshot**

<https://www.wrike.com/frontend/ganttchart/index.html?snapshotId=PyeohLTOJO0092JURK3dM7SVBCVBfhU1%7CIE2DSNZQGUZDMLSTGIYA>