

# GogoMart

*A digital initiative by Target Corp*

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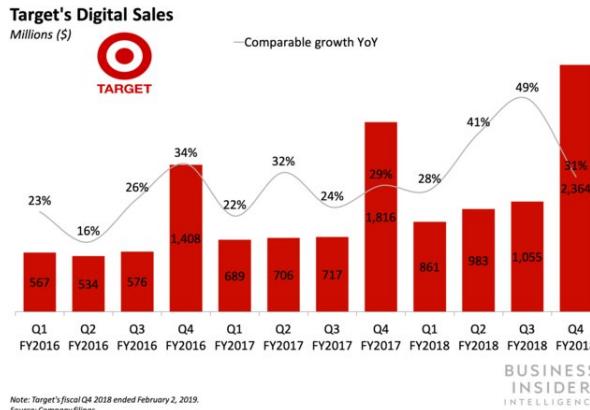
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Yuhan Man

# Problem, Request, and Diligence

- A long-term sustainable growth
- Mass merchant landscape
- Omnichannel model: Storefront Remodeling + Online
- Key campaigns 2019: Target+, Target Circle
- Challenges: Stagnant industry, Competition, Slow down



Incubate a system to enhance its **online presence**. A system drives traffic, increase brand loyalty, defend margin erosion from competition.

## Amazon vs. 5 Top Brick-and-Mortar Retailers

MARKET CAPITALIZATION (MARCH 27, 2017)



Source: Yahoo Finance

Carpe Diem AEI

All in one platform  
Traffic Redirection  
Improved Time to Access  
Recommendation System  
Quality of Service  
Speed of Service

Overview

Alternatives

Feasibility Study

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# Updates on Strategic Initiatives

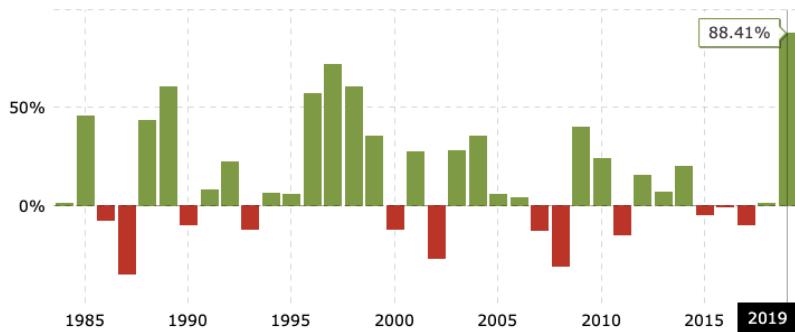
Q3 comparable sales grew 4.5 percent, 10% rise over the last two years.

= 2.8 percent growth in store sales and a 1.7 percentage point contribution from digital sales

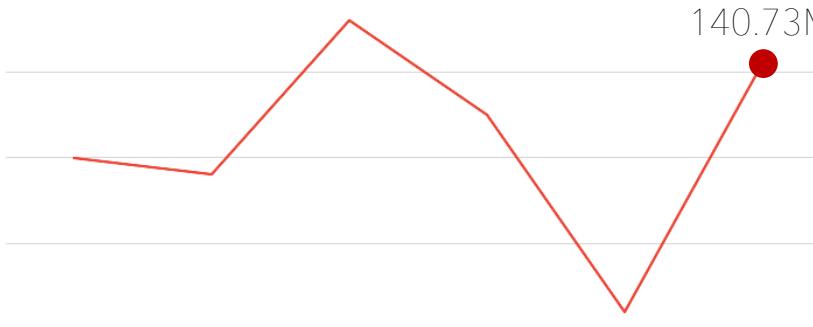
Same-day services accounted for 80% of Q3 digital growth, outpacing Q2 adoption

**124.52** USD +0.48 (0.39%) ↑

Closed: Dec 4, 7:56 PM EST · Disclaimer  
After hours 124.52 0.00 (0.00%)



# As-is System (Organization Level)



Avg. Visit Duration 00:03:39

Pages per Visit 5.16

45.80% Direct  
46.50% Search  
2.54% Social

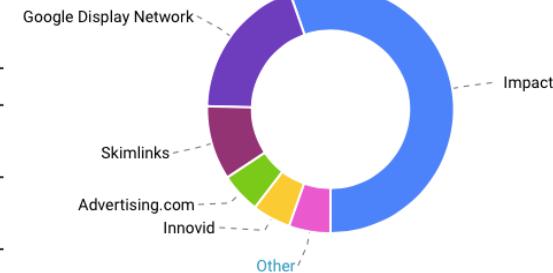


Indeed  
Google  
Nintendo  
PayPal

Facebook  
Pinterest  
YouTube  
Reddit

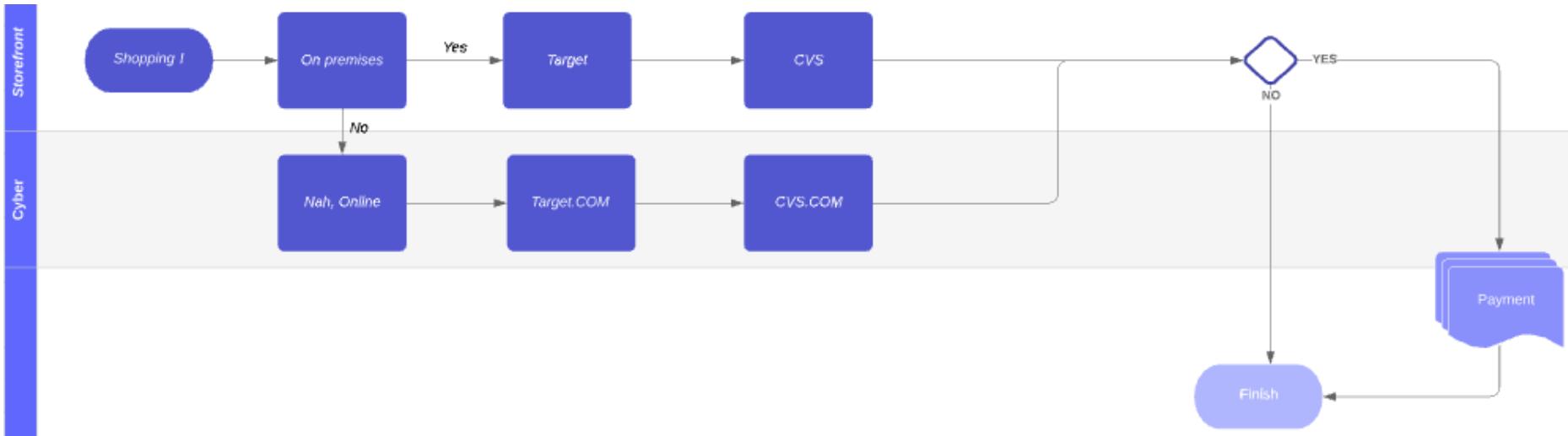
May'19 Jun'19 Jul'19 Aug'19 Sep'19 Oct'19

Sales by Channel (unaudited)	Three Months Ended		Nine Months Ended	
	November 2, 2019		November 2, 2018	
	2019	2018	2019	2018
Stores originated	92.5%	94.0%	92.7%	94.4%
Digitally originated	7.5	6.0	7.3	5.6
Total	100%	100%	100%	100%



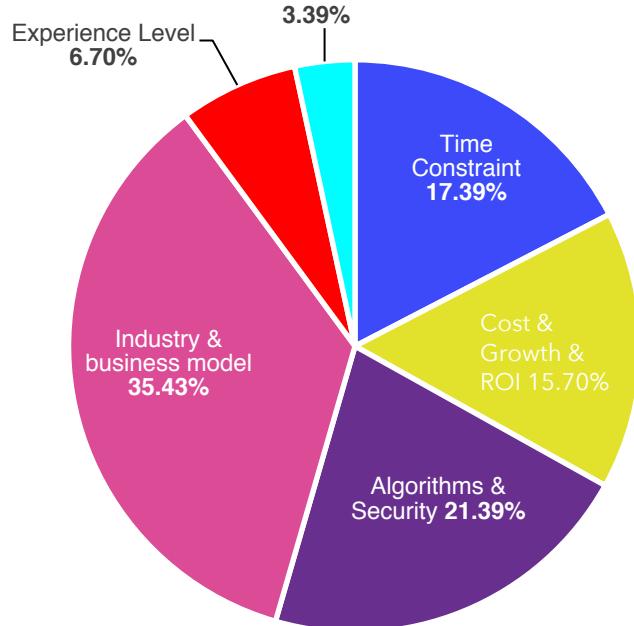
# As-is system (Outlook)

Taking Black Friday and  
Cyber Monday as examples ...



# We believe in gradual refinement

## Management feedback



*Out of 23 board committee members, we received many feedbacks for improvement ...*

1. The project will not be ready in 3 months
2. Considering the project size, it is difficult ...
3. Cost is huge if it doesn't work out
4. Similar platform exists
5. There are companies already working on this
6. Makes less difference with Walmart
7. Prefer a team with experiences

## Gradual Refinement

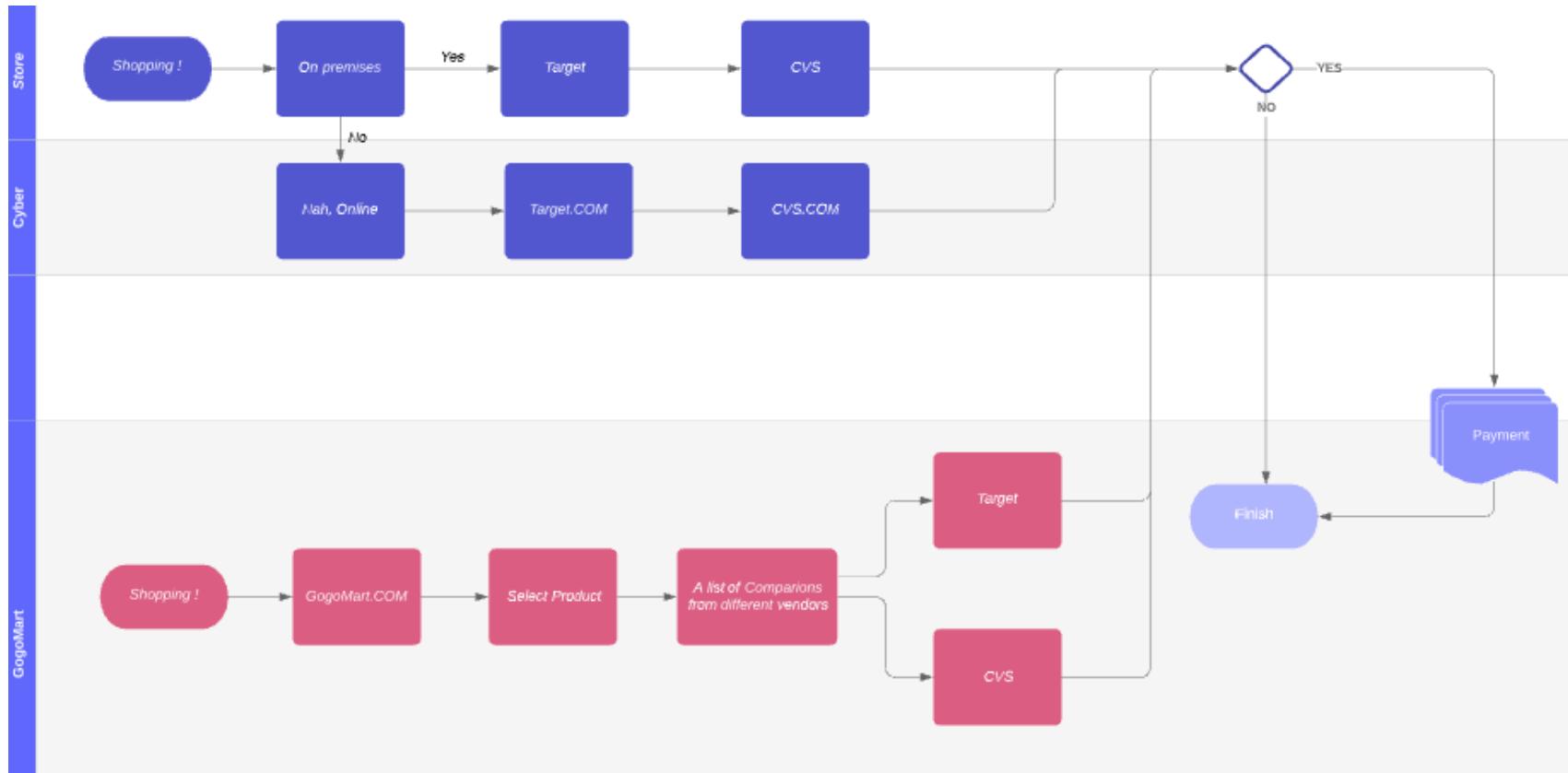
Resource Allocation

Business Model

Software Development

Feasible Financial Planning

# To-be system



Overview

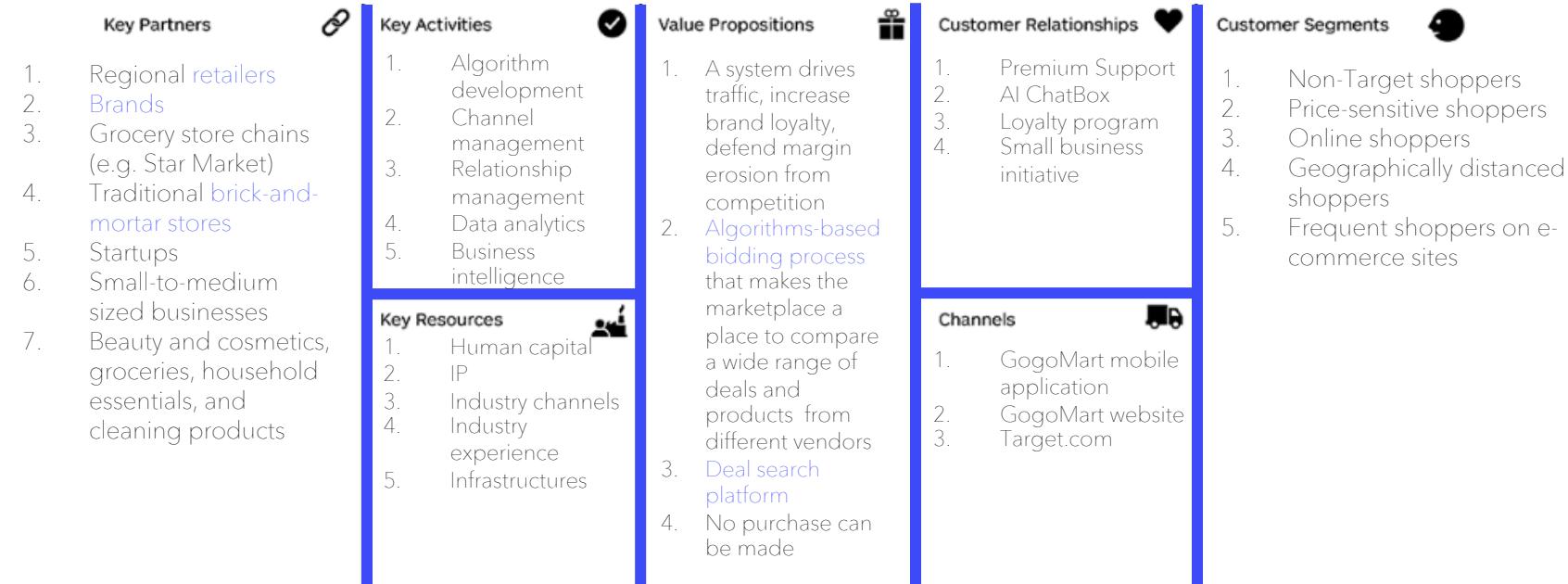
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# Proposed Solution - Business Model Canvas



## Cost Structure

### Rate Analysis

(unaudited)

Gross margin rate

SG&A expense rate

Depreciation and amortization (exclusive of depreciation included in cost of sales) expense rate

Operating income margin rate

	Three Months Ended		Nine Months Ended	
	November 2, 2019	November 3, 2018	November 2, 2019	November 3, 2018
Gross margin rate	29.8%	28.7%	30.0%	29.6%
SG&A expense rate	22.3	22.1	21.4	21.7
Depreciation and amortization (exclusive of depreciation included in cost of sales) expense rate	3.1	3.0	3.1	3.1
Operating income margin rate	5.4	4.6	6.3	5.7

## Revenue Streams

- No fixed sales commission
- Referral revenue, where retailers are charged per Cost-per-Click CPC basis
- B2B services

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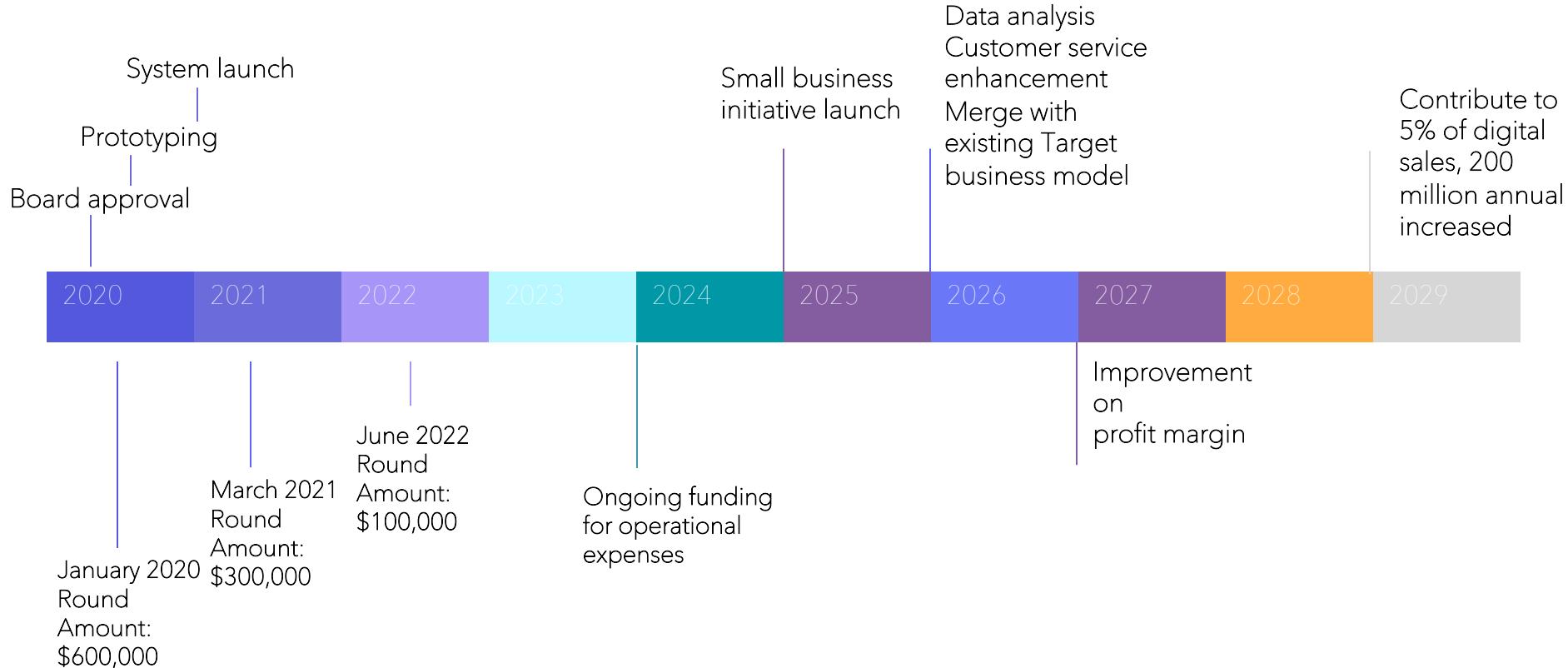
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# Investment Timeline



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# Alternatives

# Alternative Matrix

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## IN-HOUSE

Build our system  
for GogoMart  
mobile  
application



## OUTSOURCING



## CUSTOM DEVELOPMENT

Outsource the  
development of  
the system and  
use workaround  
methodology to  
add additional  
features

# Candidate matrix

Characteristics	Candidate 1	Candidate 2	Candidate 3
	Build the whole system In-house	THIRD PARTY-Outsource the entire system	CUSTOM MODEL-Outsource the development of the system and Maintain In-house
Process	This company's team created a prototype project and improved the algorithm on the system.	Quick method. They do a basic project very quickly and will regularly report to us of the progress of the project	Quickly have a basic project, and then we do algorithm improvement on it.
Benefits	All the technical needs are well implemented and there are no security risks.	Because they are professional, the system is completed quickly.	The basic system is completed quickly, all the technical needs are well implemented and there are no security risks.
Software and Tools needed	Java, SQL Server, JavaScript, HTML, python	Java, SQL Server, JavaScript, HTML	Same as Candidate 1.
Regulations and Standards	Follow the company policies and code specifications.	Follow their company's policies and code specifications, and provide interfaces that this company can use.	Follow the company policies and code specifications.
Servers and Workstations	Cloud storage and Clients	Cloud storage	Same as Candidate 1.
Spend time	20 weeks	12 weeks	16 weeks

# Candidate matrix

Characteristics	Candidate1	Candidate2	Candidate3
	Build the whole system In-house	THIRD PARTY-Outsource the entire system	CUSTOM MODEL-Outsource the development of the system and Maintain In-house
Data processing	Client/Server	Same as Candidate 1	Same as Candidate 1
Data storage	SQL Server + AWS	AWS	Same as Candidate 1
Safety testing	Test passed, high safety factor	Test passed, medium safety factor	Same as Candidate 1.
Account Access	Belongs to our website	Belongs to they website	Same as Candidate 1.
App access authentication compatibility	Allowed for all users who pass the security certification	Same as Candidate 1.	Same as Candidate 1.
Transaction control optimization	Convenient and efficient optimization, as this system is In-house.	Whatever the problem, need third- party companies to optimize the system.	Large system problems require third- party companies, usually we can do it ourselves.

Option	Weight	Candidate 1	Candidate 2	Candidate 3
		Build the whole system In-house	THIRD PARTY-Outsource the entire system	CUSTOM MODEL- Outsource the development of the system and Maintain In-house
Operational-a measure of whether the system requirements can be satisfactorily met	25%	All system requirements can be met	Most system requirements can be met	Same as Candidate 1
Score		100	85	100
Schedule feasibility-a measure of how long the project will complete	20%	14 weeks	10 weeks	12 weeks
Score		60	100	85
Economic feasibility-a measure of the cost-effectiveness of a project or solution	25%	Build and maintain the system by ourselves. payback period: 2.5 years	Build and maintain the system by them. payback period: 1 years	Candidate 1 and 2 combined. payback period: 1.5 years
Score		65	80	100
Technical feasibility-a measure of the practicality of a technical solution and the availability of technical resources and expertise.	20%	People in the company team they are must professional in this area.	They do this professionally and have experience.	The third-party companies have experience.And this team need to maintenance system professionally.
Score		80	100	95
Legal-relevant regulations to be followed	10%	Follow the company policies and code specifications.	May not meet company regulations	Same as Candidate 1
Score		100	75	100
Total	100%	79.25	88.75	96

# Why candidate 3



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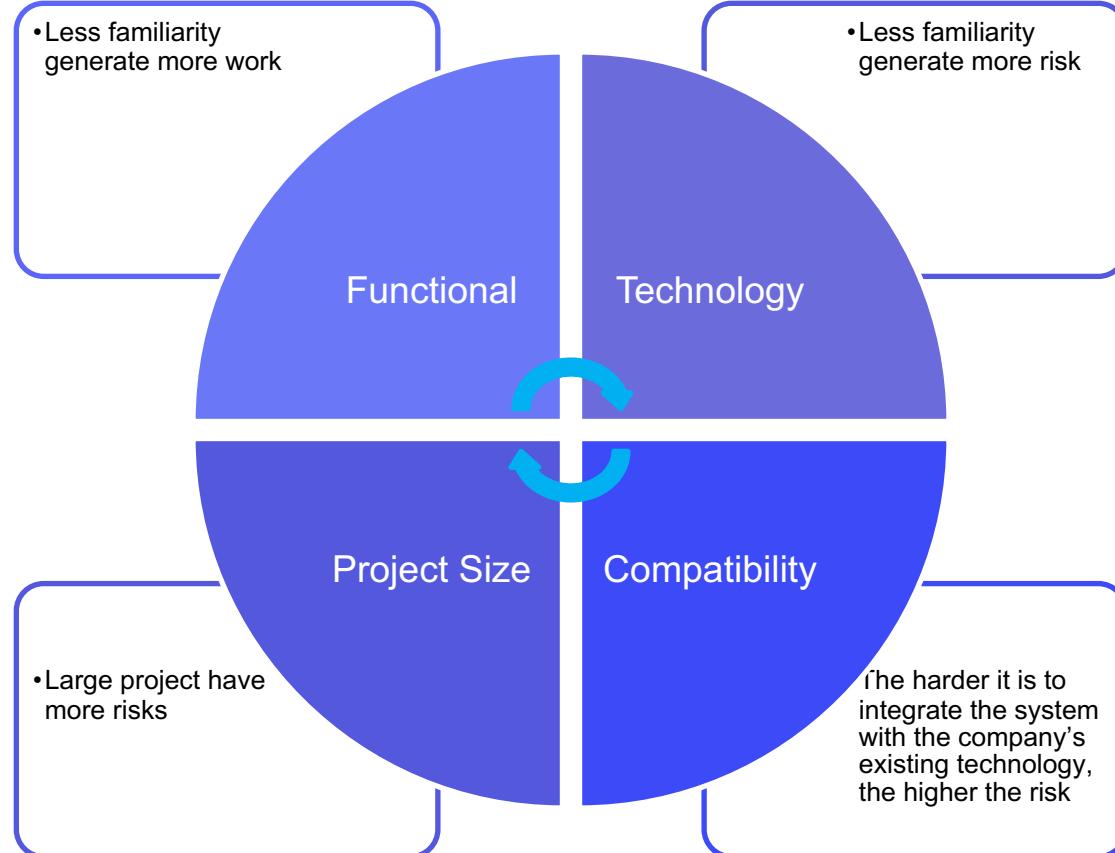
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Technical

# Technical feasibility analysis



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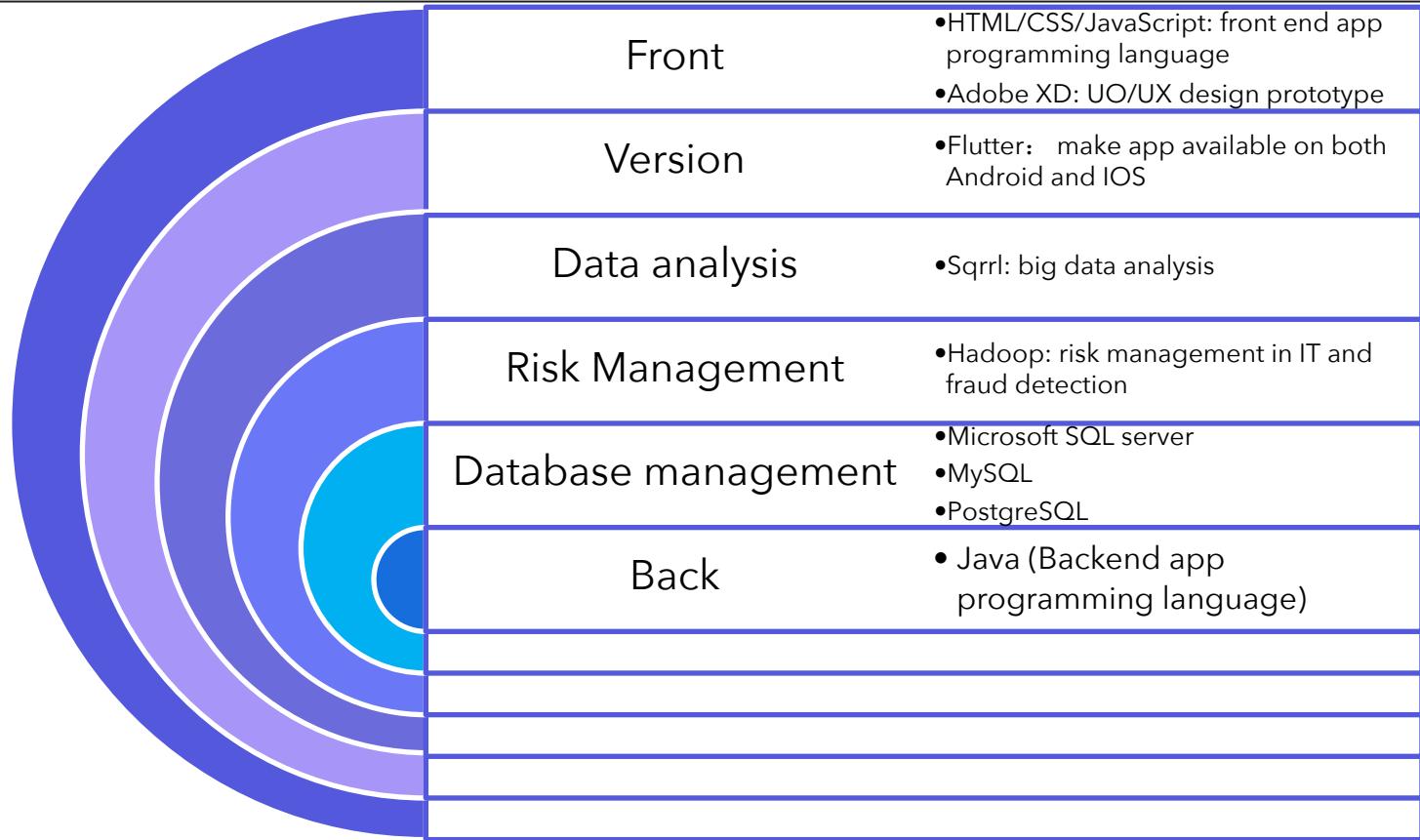
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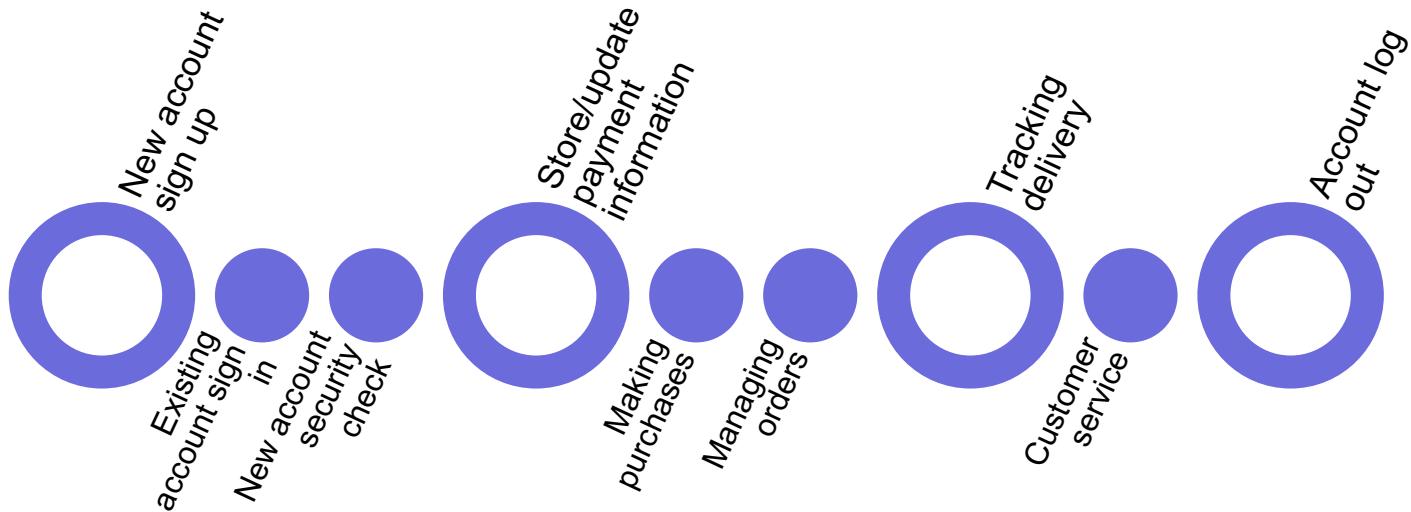
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# Tools used



# List of use cases

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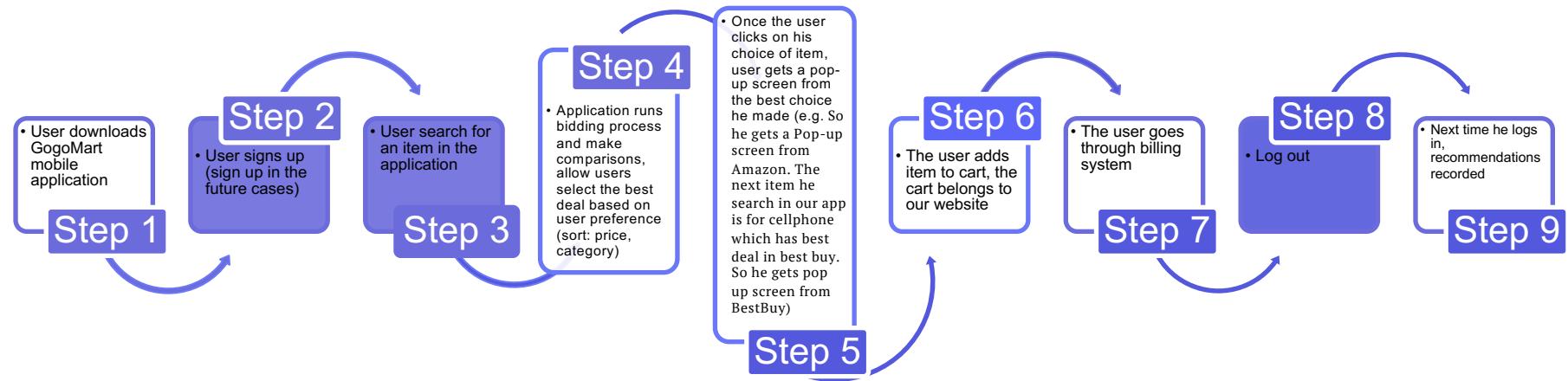
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# Activity diagram – account creation and making purchase



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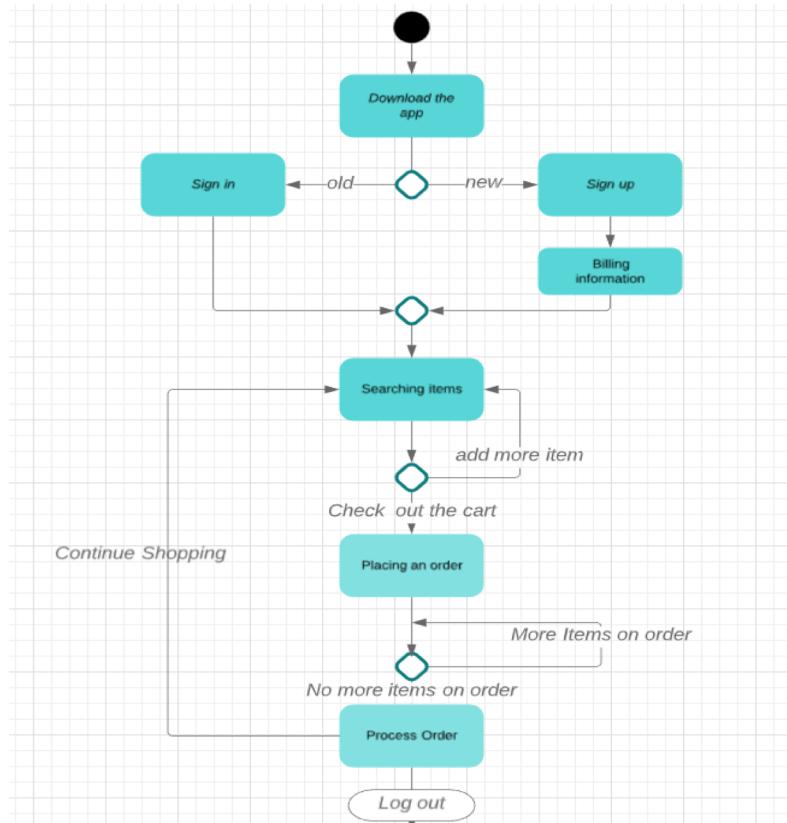
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# Activity Diagram



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# Use case description - order management

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**Step 1.** The customer log on to GogoMart web page or application.

**Step 2.** The customer click the Past Orders button, and a list of all past orders is displayed.

**Step 3.** The customer click on any order, a pop up screen displays options of cancel, complain, highlight and share.

**Step 4.** The GogoMart send an automatic email to customer confirming this activity

# Use case description

## Normal Flow of Events:

1. The customer log on to GogoMart web page or application.
2. The customer click the Past Orders button, and a list of all past orders is displayed.
3. The customer click on any order, a pop up screen displays options of cancel, complain, highlight and share.
  - If the customer wants to cancel a present order,  
the S-1 order cancellation subflow is performed.
  - If the customer wants to complain and refund a past order,  
the S-2 order cancellation subflow is performed.
  - If the customer wants to flag/unflag a particular order,  
the system flag the unflagged order, or unflag the flagged order.
  - If the customer wants to share an particular order,  
the S-3 order sharing subflow is performed.
4. The GogoMart send an automatic email to customer confirming this activity

## Subflows:

### S-1: order cancellation

- 1 The system asks the customer for confirmation
- 2 The system cancel the order and asks customer to provide reason of cancellation

### S-2: order complaint

- 1 The system takes complaint from the customer and ask his prefered refund method
- 2 The customer service team review the complaint and process the refund

### S-3 : order sharing

- 1 The system asks the permission of the customer to write a post on social media for him
- 2 The system automatically generate a post with the product link and screenshot for customer to edit

## Alternative/Exceptional Flow:

S-1,1a1: If the customer wants to cancel a past order, print error message "Sorry, it's too late!"

S-2,2a1: if the customer wants to complain a present order, print message "Bullshit, you have not received it!"

# Sequence diagram – New device security check

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**Step 1:** Existing user sign in using a new device

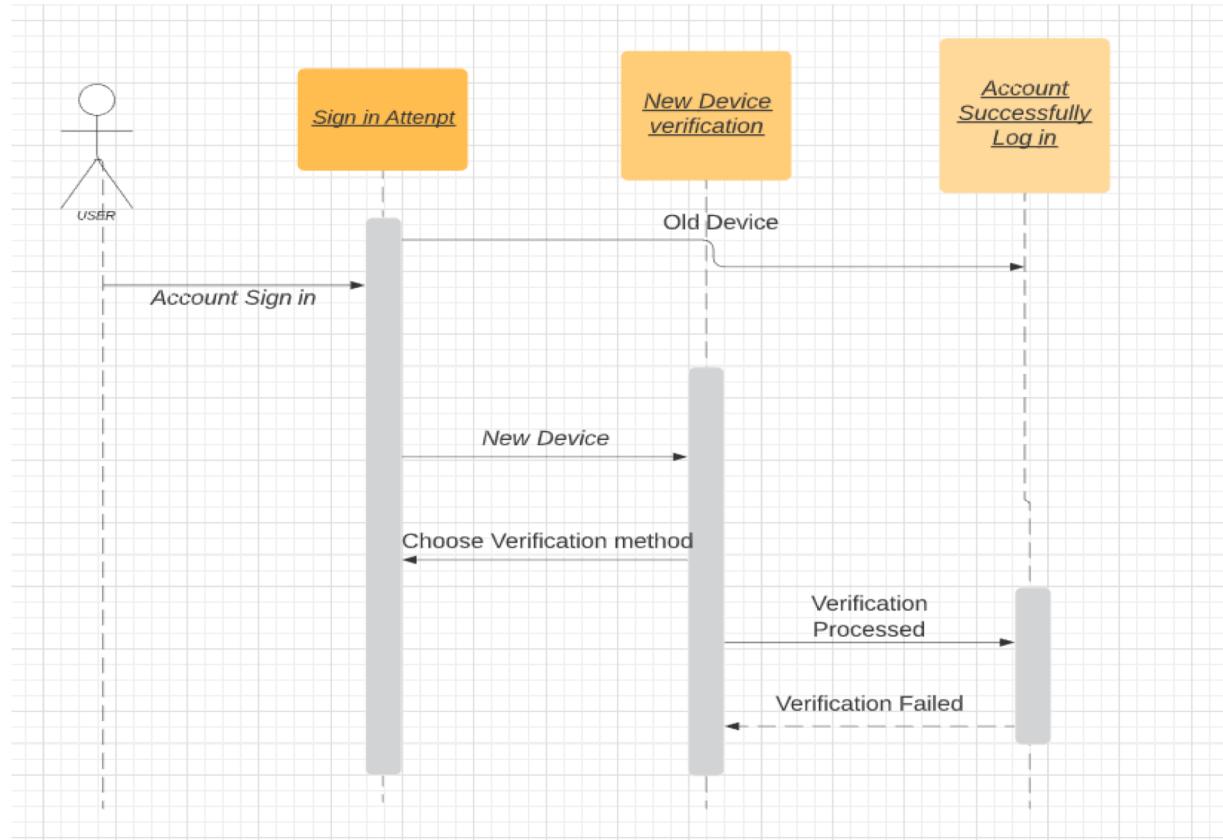
**Step 2:** The system offers three verification methods:

- Verify the email address on file by sending a link
- Verify the phone number on file by sending a code
- Scan the QR code on the new device from a used device

**Step 3:** user choose one of the above methods and follow the instruction given

**Step 4:** When the new device security check passes, the user is able to log in. Otherwise, re-attempt the security check.

# Sequence diagram



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# Structural model

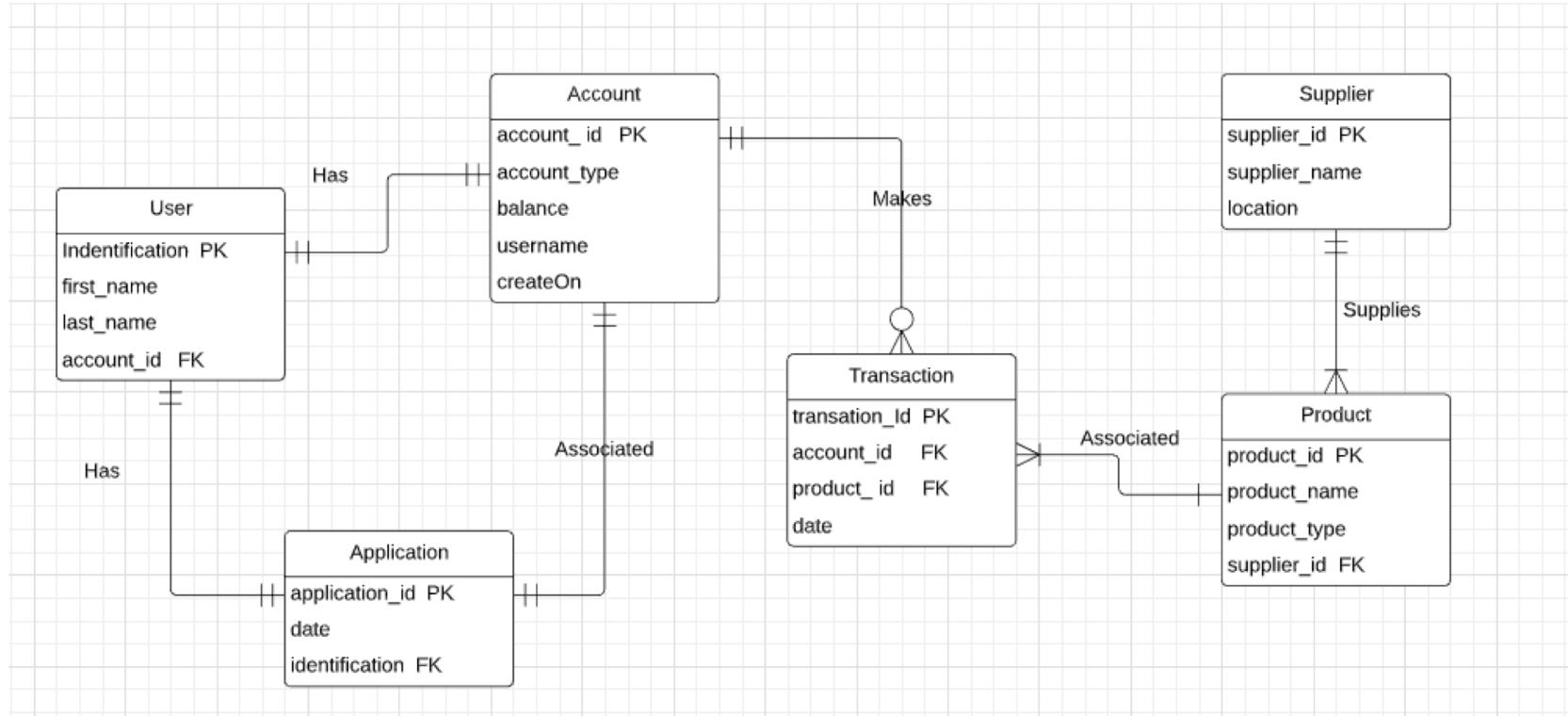
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Class Entities: User, Account, Application, Transaction, Product, Supplier.

Business Database Rules:

1. Each user has only one account, each account is owned by only one user.
2. Each user has only one account application, each account application is done by only one user.
3. Each account is associated with one account application, each account application is associated with only one account.
4. Each account can make zero to many transactions, each transaction is made by only one account.
5. Each transaction is associated with only one product, each product is associated with one to many transactions.
6. Each product is supplied by only one supplier, and each supplier supplies one to many products.

# Structural mode - ERD diagram



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# DBMS - Microsoft SQL Server - Sample Account Creation

## 1. Create the database

```
CREATE TABLE Account(
    AccountID DECIMAL(12) NOT NULL PRIMARY KEY,
    AchievementID DECIMAL(12),
    GameCode DECIMAL(12),
    UserName VARCHAR(64) NOT NULL,
    EncryptedPassword VARCHAR(255) NOT NULL,
    FirstName VARCHAR(255) NOT NULL,
    LastName VARCHAR(255) NOT NULL,
    AccountType CHAR (1) NOT NULL,
    FOREIGN KEY (AchievementID) REFERENCES Achievement(AchievementID),
    FOREIGN KEY (GameCode) REFERENCES Game(GameCode));

CREATE TABLE FreeAccount(
    AccountID DECIMAL(12) NOT NULL PRIMARY KEY,
    FOREIGN KEY (AccountID) REFERENCES Account(AccountID));

CREATE TABLE PrimeAccount(
    AccountID DECIMAL(12) NOT NULL PRIMARY KEY,
    AccountBalance DECIMAL(7,2) NOT NULL,
    PaymentTypeID DECIMAL(12) NOT NULL,
    BankID DECIMAL (5) NOT NULL,
    FOREIGN KEY (AccountID) REFERENCES Account(AccountID));
```

100 %

Messages

Commands completed successfully.

Completion time: 2019-11-22T15:17:22.6303685-08:00

## 2. Create account creation procedure

```
CREATE PROCEDURE AddFreeAccount
    @AccountId DECIMAL(12),
    @AchievementID DECIMAL(12),
    @GameCode DECIMAL(12),
    @UserName VARCHAR(64),
    @EncryptedPassword VARCHAR(255),
    @FirstName VARCHAR(255),
    @LastName VARCHAR(255),
    @AccountType CHAR (1)
AS
BEGIN
    INSERT INTO Account(AccountID, AchievementID, GameCode, Username, EncryptedPassword,
        FirstName, LastName, AccountType)
    VALUES (@AccountId, @AchievementID, @GameCode, @Username, @EncryptedPassword,
        @FirstName, @LastName, 'F');

    INSERT INTO FreeAccount(AccountID)
    VALUES (@AccountId);
END;
GO
```

100 %

Messages

Commands completed successfully.

completion time: 2019-11-22T14:23:24.0001178-08:00

## 3. Database input

```
BEGIN TRANSACTION AddFreeAccount
EXECUTE AddFreeAccount 1, 1, 2, 'abc','abc','Alen', 'brown', 'f' ;
COMMIT TRANSACTION AddFreeAccount;
```

100 %

Messages

(1 row affected)

(1 row affected)

Completion time: 2019-11-22T14:35:06.6661764-08:00

# DBMS - Microsoft SQL Server – Sample Tracking Balance

```
CREATE TABLE BalanceChange(
    BalanceChangeID DECIMAL(12) NOT NULL PRIMARY KEY,
    OldBalance DECIMAL(7,2) NOT NULL,
    NewBalance DECIMAL(7,2) NOT NULL,
    AccountID DECIMAL(12) NOT NULL,
    ChangeDate DATE NOT NULL,
    FOREIGN KEY (AccountID) REFERENCES Account(AccountID));
```

100 %

Messages

Commands completed successfully.

Completion time: 2019-11-22T15:28:06.0988141-08:00

```
CREATE TRIGGER BalanceChangeTrigger
ON PrimeAccount
AFTER UPDATE
AS
BEGIN
    DECLARE @OldBalance DECIMAL(7,2) = (SELECT AccountBalance FROM DELETED);
    DECLARE @NewBalance DECIMAL(7,2) = (SELECT AccountBalance FROM INSERTED);

    IF (@OldBalance <> @NewBalance)
        INSERT INTO BalanceChange(BalanceChangeID,OldBalance,NewBalance,AccountID,ChangeDate)
        VALUES(ISNULL((SELECT MAX(BalanceChangeID)+1 FROM BalanceChange),1),
               @OldBalance, @NewBalance,
               (SELECT AccountID FROM INSERTED),
               GETDATE());
END;
```

100 %

Messages

Commands completed successfully.

Completion time: 2019-11-22T15:39:25.1637883-08:00

1. Create history table
2. Create balance change trigger
3. Sample input
4. Sample output

```
UPDATE PrimeAccount
SET AccountBalance = 50
WHERE AccountID = 2;

UPDATE PrimeAccount
SET AccountBalance = 75
WHERE AccountID = 2;
```

100 %

Messages

(1 row affected)

(1 row affected)

select \* from BalanceChange

100 %

Results Messages

	BalanceChangeID	OldBalance	NewBalance	AccountID	ChangeDate
1	1	100.00	50.00	2	2019-11-22
2	2	50.00	75.00	2	2019-11-22

# Technical feasibility summary

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Familiarity with functional area: 9/10

Producing extensions to the existing system is less risky because the existing system is better understood

Familiarity with Technology: 8.5/10

The technology is not new and was used before multiple times within the organization.

Project Size: 9.5/10

small and manageable project size

Compatibility: 9/10

The new application rely on the customer preference data from our existing system, and uses our company's existing communications infrastructure.

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# Organization

# System Proposal Summary

90%

Custom Development

Custom development here is optimizing packaged solution to fit our needs. With the amount of people specified in organizational chart we achieve the below

- Delivery: 16 weeks
- Staff required for completion: 9
- Staff required after completion: 9
- Customer service

85%

Outsourcing

Outsourcing timeline will be close to custom development with less staffing but more expensive service

- Delivery: 16-20 weeks
- Staff required for completion: 2
- Staff required after completion: 3
- Customer service

65%

In-House Development

In-House option has long development timeline and requires a large operational team

- Delivery: 32 weeks
- Staff for completion: 15
- Staff required after completion: 10
- Customer service

100 % In-house  
Development

Involves internal Legal procedure between company and employees.

80% Outsource

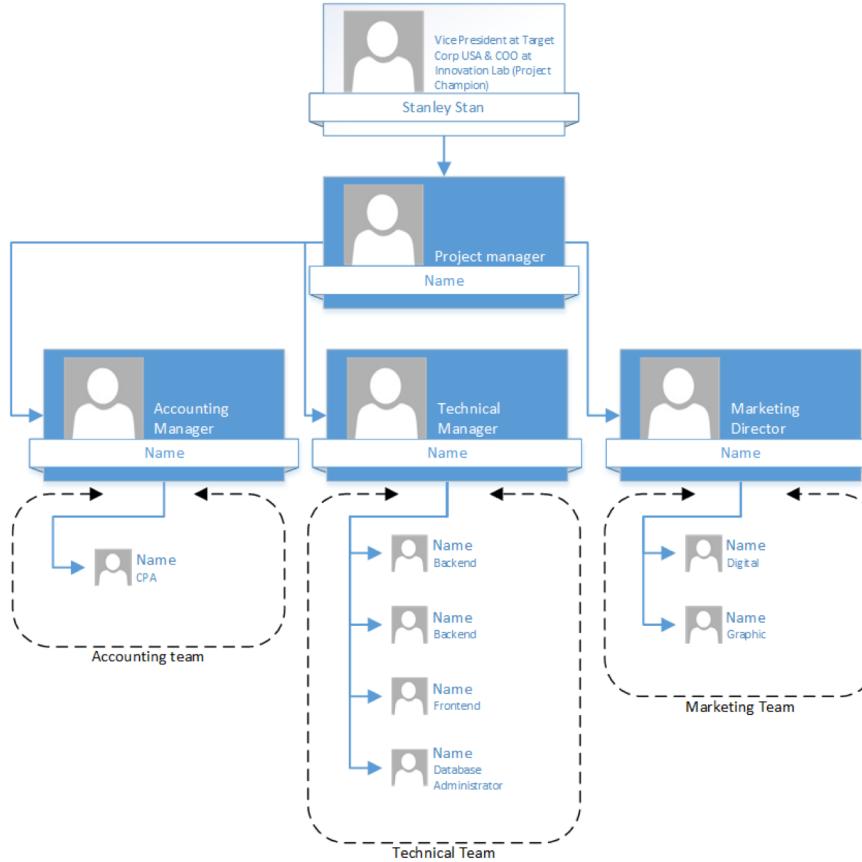
Involves some Legal process:

- Confidentiality
- Copyrights
- Penalties

90 % Custom  
Development

Involves internal Legal procedure between company and employees. Also requires copyrights clearance.

# Organizational Diagram - Customized Solution



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# Stakeholders

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Stakeholders	Role In-House	Role in Outsource Candidate	Role in Custom Development
Champion	<ul style="list-style-type: none"><li>• Initiates the project</li><li>• Promotes the project</li><li>• Provides resources</li></ul>	<ul style="list-style-type: none"><li>• Initiates the project</li><li>• Promotes the project</li><li>• Provides resources</li></ul>	<ul style="list-style-type: none"><li>• Initiates the project</li><li>• Promotes the project</li><li>• Provides resources</li></ul>
Project Manager	<ul style="list-style-type: none"><li>• Plans and Coordinates the development of the project</li></ul>	<ul style="list-style-type: none"><li>• Constant and efficient communication with outsourcing company</li></ul>	<ul style="list-style-type: none"><li>• Confirms the purchase of packaged solutions in addition to planning and coordinating development cycle</li></ul>
System Users	Both functional and technical experience is required	No need for in-house functional or technical experience	Technical experience is required

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# Staffing

	Custom Development (70%)	Outsourcing (90%)	In-house development (50%)
Pre-delivery	Total: 9 <ul style="list-style-type: none"><li>- Project Manager</li><li>- Marketing expert</li><li>- Technical Manager</li><li>- Database Administrator</li><li>- 2 Backend developers</li><li>- Frontend developer</li><li>- Graphic Designer</li><li>- CPA</li></ul>	Total: 2 <ul style="list-style-type: none"><li>- Project Manager</li><li>- Technical Manager</li></ul>	Total: 15 <ul style="list-style-type: none"><li>- Project Manager</li><li>- Accounting Manager</li><li>- Marketing Manager</li><li>- Technical Manager</li><li>- Database Administrator</li><li>- 3 Backend/mobile developers</li><li>- 3 Frontend developers</li><li>- Digital Marketing</li><li>- Graphic Designer</li><li>- CPA</li></ul>
Post-delivery	Total: 9 <ul style="list-style-type: none"><li>- Project Manager</li><li>- Accounting Manager</li><li>- Marketing Manager</li><li>- Database Administrator</li><li>- Backend developer</li><li>- Frontend developer</li><li>- 2 Digital Marketing</li><li>- CPA</li></ul>	Total: 3 <ul style="list-style-type: none"><li>- Project Manager</li><li>- Accounting Manager</li><li>- CPA</li></ul>	Total: 10 <ul style="list-style-type: none"><li>- Project Manager</li><li>- Accounting Manager</li><li>- Marketing Manager</li><li>- Technical Manager</li><li>- Database Administrator</li><li>- Backend developer</li><li>- Frontend developer</li><li>- Graphic Designer</li><li>- Digital Marketing</li><li>- CPA</li></ul>

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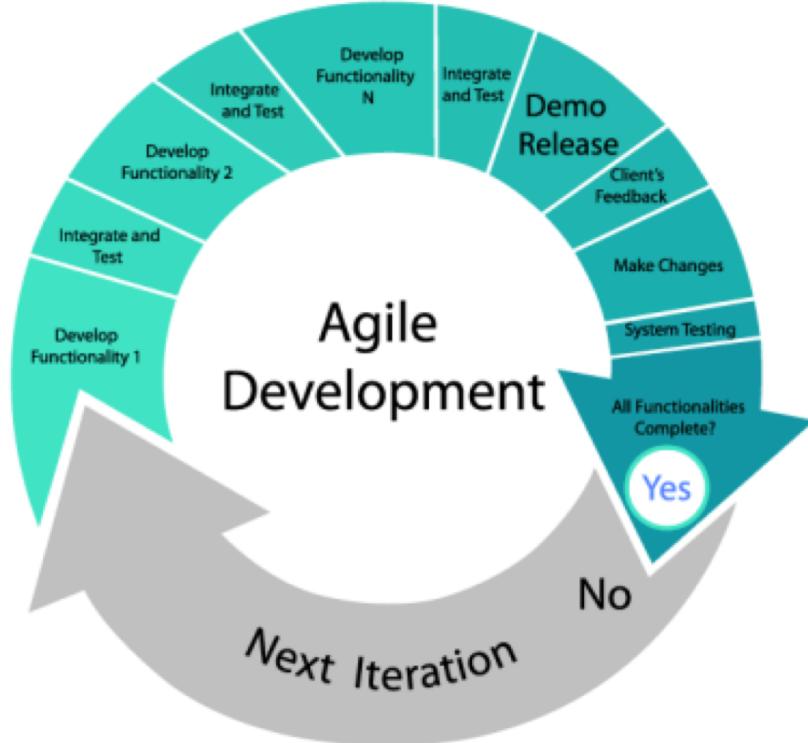
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# Methodology

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Tasks for custom and in-house development options will undergo an agile methodology with continuous releases to insure a quick, comprehensive and adjusting to any changing requirements. Iterations are expected as soon as completed or within a 2 weeks time frame.



# Schedule

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Described here is the schedule and work breakdown of custom development option; taking into consideration a timeline of 16 weeks and a staff of 9 specialists here are the required tasks for completion:

Implementation	Testing	Deployment
<b>12 weeks</b>  Implementation of tasks for web and mobile environments  Integration with already established solutions  Database implementation	<b>2 weeks</b>  This duration consists of incremental and final testing procedure with minor bug fixes	<b>2 weeks</b>  Deployment on all environments and making sure of proper functioning

# Work breakdown

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Tasks	Duration	Dependency	Weekly timeline
1 Scraping algorithm	3		1-3
2 Importing product reviews	2	1	3-5
3 Homepage recommendations	2	1	4-6
4 Mobile development	2	3	6-8
5 Reporting tools	3	3	8-11
6 Testing	2	4-5	11-13
7 Deploy	2	6	13-15

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# Financials

# Economic revenue breakdown

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Operating Revenues</b>										
<b>CPC Model</b>										
CTR (Click Through Rate)	3.17%	3.17%	3.17%	3.50%	4.00%	4.20%	4.20%	4.20%	4.30%	
Number of Impressions	2,000,000	4,000,000	5,500,000	8,000,000	10,000,000	13,000,000	15,000,000	18,000,000	20,000,000	
Cost-Per-Click	\$1.80	\$1.80	\$2.00	\$2.20	\$2.50	\$2.70	\$2.80	\$3.00	\$3.50	
<b>Total Operating Revenue from CPC</b>	<b>\$114,120.00</b>	<b>\$228,240.00</b>	<b>\$348,700.00</b>	<b>\$616,000.00</b>	<b>\$1,000,000.00</b>	<b>\$1,474,200.00</b>	<b>\$1,764,000.00</b>	<b>\$2,268,000.00</b>	<b>\$3,010,000.00</b>	
<b>Traffic Conversion to Target.US</b>										
Projected Traffic Level (Base 140M@1%)	1,400,000,000	1,414,000,000	1,428,140,000	1,442,421,400	1,456,845,614	1,471,414,070	1,486,128,211	1,500,989,493	1,515,999,388	1,531,159,382
CTR	1.50%	1.80%	2.00%	2.50%	2.80%	3.40%	3.80%	4.50%	5.50%	
Number of Customers	21210000	25706520	28848428	36421140	41199594	50528359	57037601	68219972	84213766	
Conversion Rate to Sales	7.00%	7.00%	8.00%	8.50%	10.00%	12.00%	13.00%	14.00%	15.00%	
<b>Total Operating Revenue from Sales on Target.US</b>	<b>1484700</b>	<b>1799456</b>	<b>2307874</b>	<b>3095797</b>	<b>4119959</b>	<b>6063403</b>	<b>7414888</b>	<b>9550796</b>	<b>12632064.9</b>	
<b>B2B Services</b>										
Small Business Enrolled					700	1000	1500	1800	2000	
Referral Fees/Closing Fees					3.80%	4.20%	4.50%	4.50%	4.80%	
Number of Sales per Referral Annual (base: 30 units/day)					25,000	40,000	50,000	55,000	55,000	
<b>Total B2B revenue</b>					<b>665000</b>	<b>1680000</b>	<b>3375000</b>	<b>4455000</b>	<b>5280000</b>	
<b>Total Operating Revenue</b>	<b>\$1,598,820</b>	<b>\$0</b>	<b>\$2,027,696</b>	<b>\$0</b>	<b>\$2,656,574</b>	<b>\$0</b>	<b>\$3,711,797</b>	<b>\$0</b>	<b>\$5,119,959</b>	<b>\$0</b>
<b>Intangible Benefits</b>										
Increased Customer Loyalty										
Increased Data Input										
Increased Brand Value										
Increased Market Share in E-commerce										
Social Impact										
Dependent of the characteristics of particular alternative										
<b>Total Revenue</b>	<b>\$</b>	<b>\$1,598,820</b>	<b>\$2,027,696</b>	<b>\$2,656,574</b>	<b>\$3,711,797</b>	<b>\$5,119,959</b>	<b>\$7,537,603</b>	<b>\$9,178,888</b>	<b>\$11,818,796</b>	<b>\$15,642,065</b>

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# Cost breakdown – alternative 1

Candidate 1 (In House)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Development cost</b>										
Development Team Salaries										
Requirement Analysis										
Requirement Gathering	40,000	0	0	0	0	0	0	0	0	0
Data Analysis	45000	0	0	0	0	0	0	0	0	0
Technical Feasibility Analysis										
Application Design	16000	0	0	0	0	0	0	0	0	0
Compatibility Design	16000	0	0	0	0	0	0	0	0	0
UI/UX Design	50000	0	0	0	0	0	0	0	0	0
Database Design	60000	0	0	0	0	0	0	0	0	0
Hardware + Software										
Hardware										
Laptops	48000	0	0	0	0	0	0	0	0	0
Computers	10500	0	0	0	0	0	0	0	0	0
Keyboards	450	0	0	0	0	0	0	0	0	0
Mouses	300	0	0	0	0	0	0	0	0	0
Software										
Matlab	2150	0	0	0	0	0	0	0	0	0
Cloud Server rental	0	0	0	0	0	0	0	0	0	0
Adobe	636	636	636	636	636	636	636	636	636	636
total:	62036	636	636	636	636	636	636	636	636	636
Operational Cost										
Operational Team Salaries										
IT Department										
Engineer	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000
Customer Services										
Representatives	300,000	250,000	250,000	250,000	250,000	200,000	200,000	200,000	200,000	200,000
Marketing & Advertisement	180,000	150,000	100,000	100,000	80,000	80,000	80,000	80,000	80,000	80,000
total:	1,230,000	1,150,000	1,100,000	1,100,000	1,080,000	1,030,000	1,030,000	1,030,000	1,030,000	1,030,000
Marketing										
Social Media + advertisement	150,000	180,000	180,000	180,000	150,000	100,000	100,000	100,000	100,000	100,000
Promotions (gifts)	100,000	100,000	100,000	50,000	10,000	5,000	5,000	5,000	5,000	5,000
total:	250,000	280,000	280,000	230,000	160,000	105,000	105,000	105,000	105,000	105,000
Hardware + Software										
Hardware upgrade	0	0	1000	1000	1000	1000	1000	1000	1000	1000
Hardware repair	0	0	3000	3000	3000	3000	3000	3000	3000	3000
Software upgrade	0	0	3000	3000	3000	3000	3000	3000	3000	3000
total:	0	0	7000	7000	7000	7000	7000	7000	7000	7000
Total Development Cost:	289,036	636	636	636	636	636	636	636	636	636
Total Operational Cost:	1,480,000	1,430,000	1,387,000	1,337,000	1,247,000	1,142,000	1,142,000	1,142,000	1,142,000	1,142,000
Total Cost:	1,769,036	1,430,636	1,387,636	1,337,636	1,247,636	1,142,636	1,142,636	1,142,636	1,142,636	1,142,636

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# Cost breakdown – alternative 2

	Initial Funding: 10,000,000									
Candidate 2(Outsourcing)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Development cost</b>										
<b>Outsourcing:</b>										
Counseling	McKinsey	400,000	0	0	0	0	0	0	0	0
IT	IBM	600,000	0	0	0	0	0	0	0	0
<b>Operational Cost</b>										
<b>Marketing</b>										
Social Media + advertisement		150,000	180,000	180,000	180,000	150,000	100,000	100,000	100,000	100,000
Promotions (gifts)		100,000	100,000	100,000	50,000	10,000	5,000	5,000	5,000	5,000
total:		250,000	280,000	280,000	230,000	160,000	105,000	105,000	105,000	105,000
<b>Operational Team Salaries</b>										
<b>Customer Services</b>										
Representatives		300,000	250,000	250,000	250,000	250,000	200,000	200,000	200,000	200,000
Marketing & Advertisement		180,000	150,000	100,000	100,000	80,000	80,000	80,000	80,000	80,000
total:		480,000	400,000	350,000	350,000	330,000	280,000	280,000	280,000	280,000
<b>Hardware + Software</b>										
Hardware upgrade		0	0	0	0	0	0	0	0	0
Hardware repair		0	0	0	0	0	0	0	0	0
Software license		0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Software upgrade		0	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Developmental Cost:	1,000,000	0	0	0	0	0	0	0	0	0
Operational Cost:	730,000	880,000	830,000	780,000	690,000	585,000	585,000	585,000	585,000	585,000
<b>Total Cost:</b>	<b>1,730,000</b>	<b>880,000</b>	<b>830,000</b>	<b>780,000</b>	<b>690,000</b>	<b>585,000</b>	<b>585,000</b>	<b>585,000</b>	<b>585,000</b>	<b>585,000</b>

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# Cost breakdown – alternative 3

Candidate 3(Customize)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>Development cost</b>										
Development Team Salaries										
Requirement Analysis										
Requirement Gathering	40,000	0	0	0	0	0	0	0	0	0
Data Analysis	45000	0	0	0	0	0	0	0	0	0
Technical Feasibility Analysis										
Compatibility Design	16000	0	0	0	0	0	0	0	0	0
Packages Purchase										
App	10000	0	0	0	0	0	0	0	0	0
Database	0	0	0	0	0	0	0	0	0	0
Hardware + Software										
Hardware										
Laptops	48000	0	0	0	0	0	0	0	0	0
Opeartional Cost										
Operational Team Salaries										
IT Department										
Engineer	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000	750,000
Customer Services										
Representatives	300,000	250,000	250,000	250,000	250,000	200,000	200,000	200,000	200,000	200,000
Marketing & Advertisement	180,000	150,000	100,000	100,000	80,000	80,000	80,000	80,000	80,000	80,000
Marketing										
Social Media + advertisement	150,000	180,000	180,000	180,000	150,000	100,000	100,000	100,000	100,000	100,000
Promotions (gifts)	100,000	100,000	100,000	50,000	10,000	5,000	5,000	5,000	5,000	5,000
Hardware + Software										
Hardware upgrade	0	0	1000	1000	1000	1000	1000	1000	1000	1000
Hardware repaire	0	0	3000	3000	3000	3000	3000	3000	3000	3000
Software upgrade	0	0	3000	3000	3000	3000	3000	3000	3000	3000
Total Development Cost:	159,000	0	0	0	0	0	0	0	0	0
Total Operational Cost:	1,480,000	1,430,000	1,387,000	1,337,000	1,247,000	1,142,000	1,142,000	1,142,000	1,142,000	1,142,000
<b>Total Cost:</b>	<b>1,639,000</b>	<b>1,430,000</b>	<b>1,387,000</b>	<b>1,337,000</b>	<b>1,247,000</b>	<b>1,142,000</b>	<b>1,142,000</b>	<b>1,142,000</b>	<b>1,142,000</b>	<b>1,142,000</b>

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# Cash flow – candidate 1

Candidate 1(Inhouse)											
Discount rate: 7.5%	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Cash Flow	1	2	3	4	5	6	7	8	9	10	Total
<strong>Revenue</strong>											
CPC	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
To Target US.	0	1484700	1799456	2307874	3095797	4119959	6063403	7414888	9550796	12632064.9	
B2B	0	0	0	0	0	665,000	1,680,000	3,375,000	4,455,000	5,280,000	
Total Revenue:	0	1,484,700	1,799,456	2,307,874	3,095,797	4,784,959	7,743,403	10,789,888	14,005,796	17,912,065	
PV of Revenue:	0	1,284,759	1,448,491	1,728,137	2,156,404	3,100,469	4,667,374	6,049,914	7,305,192	8,690,825	36,431,566
PV of all Revenue:	0	1,284,759	2,733,250	4,461,388	6,617,792	9,718,261	14,385,635	20,435,550	27,740,741	36,431,566	
<strong>Development Cost</strong>											
Development Team Salaries	227,000	0	0	0	0	0	0	0	0	0	0
Hardware + Software	62036	636	636	636	636	636	636	636	636	636	636
<strong>Operational Cost</strong>											
Operational Team Salaries	1,230,000	1,150,000	1,100,000	1,080,000	1,030,000	1,030,000	1,030,000	1,030,000	1,030,000	1,030,000	
Marketing	250000	280000	280000	230000	160000	105000	105000	105000	105000	105000	
Hardware + Software	0	0	7000	7000	7000	7000	7000	7000	7000	7000	
Total Cost:	1,769,036	1,430,636	1,387,636	1,317,636	1,197,636	1,142,636	1,142,636	1,142,636	1,142,636	1,142,636	
Pv of Cost:	1645614.88	1237975.987	1116992.265	986646.5349	834223.6942	740384.1576	688729.4489	640678.5572	595980.0532	554400.0495	9041625.631
PV of all Cost:	1645614.88	2883590.871	4000583.136	4987229.67	5821453.365	6561837.522	7250566.971	7891245.528	8487225.582	9041625.631	
Yearly NPV:	(1645614.88)	46783.34	331498.86	741490.74	1322180.43	2360085.14	3978644.66	5409235.74	6709211.67	8136425.08	27389940.78
Cumulative NPV:	(1645614.88)	(1598831.54)	(1267332.68)	(525841.94)	796338.49	3156423.63	7135068.29	12544304.03	19253515.70	27389940.78	
Return on Investment:	302.93%										
Break-even Point	4.39770816										

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# Cash flow - candidate 2

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Candidate 2(Outsourcing)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Cash Flow	1	2	3	4	5	6	7	8	9	10	Total
<b>Revenue</b>											
CPC	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
To Target US.	0	1484700	1799456	2307874	3095797	4119959	6063403	7414888	9550796	12632064.9	
B2B	0	0	0	0	0	665,000	1,680,000	3,375,000	4,455,000	5,280,000	
Total Revenue:	0	1,484,700	1,799,456	2,307,874	3,095,797	4,784,959	7,743,403	10,789,888	14,005,796	17,912,065	
PV of Revenue:	0	1,284,759	1,448,491	1,728,137	2,156,404	3,100,469	4,667,374	6,049,914	7,305,192	8,690,825	36,431,566
PV of all Revenue:	0	1,284,759	2,733,250	4,461,388	6,617,792	9,718,261	14,385,635	20,435,550	27,740,741	36,431,566	
<b>Development Cost</b>											
Outsourcing	1,000,000	0	0	0	0	0	0	0	0	0	0
<b>Operational Cost</b>											
Marketing	250,000	280,000	280,000	230,000	160,000	105,000	105,000	105,000	105,000	105,000	
Operational Team Salaries	480,000	400,000	350,000	350,000	330,000	280,000	280,000	280,000	280,000	280,000	
Hardware+Software	0	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	
Total Cost:	1,730,000	880,000	830,000	780,000	690,000	585,000	585,000	585,000	585,000	585,000	
PV of Cost:	1,609,302	761,493	668,117	584,064	480,625	379,057	352,612	328,011	305,126	283,838	5,752,247
PV of all Cost:	1,609,302	2,370,795	3,038,912	3,622,977	4,103,602	4,482,660	4,835,271	5,163,282	5,468,408	5,752,247	
Yearly NPV:	(1609302.33)	523266.63	780373.85	1144072.86	1675778.67	2721411.81	4314762.49	5721903.49	7000065.39	8406986.68	30,679,320
Cumulative NPV:	(1609302.33)	(1086035.69)	(305661.84)	838411.02	2514189.69	5235601.50	9550363.99	15272267.48	22272332.87	30679319.55	
Return on Investment:	533.34%										
Break-even Point	3.267169908										

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# Cash flow - candidate 3

Candidate 3(Customize)		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Cash Flow		1	2	3	4	5	6	7	8	9	10	
<b>Revenue</b>												
CPC		0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
To Target US.		0	1484700	1799456	2307874	3095797	4119959	6063403	7414888	9550796	12632064.9	
B2B		0	0	0	0	0	665,000	1,680,000	3,375,000	4,455,000	5,280,000	
<b>Total Revenue:</b>		0	1,484,700	1,799,456	2,307,874	3,095,797	4,784,959	7,743,403	10,789,888	14,005,796	17,912,065	
<b>PV of Revenue:</b>		0	1,284,759	1,448,491	1,728,137	2,156,404	3,100,469	4,667,374	6,049,914	7,305,192	8,690,825	36,431,566
<b>PV of all Revenue:</b>		0	1,284,759	2,733,250	4,461,388	6,617,792	9,718,261	14,385,635	20,435,550	27,740,741	36,431,566	
<b>Development Cost</b>												
Development Team Salaries		101000	0	0	0	0	0	0	0	0	0	
Packages Purchase		10000	0	0	0	0	0	0	0	0	0	
Hardware+Software		48000	0	0	0	0	0	0	0	0	0	
<b>Operational Cost</b>												
Opereation Team Salaries		1,230,000	1,150,000	1,100,000	1,080,000	1,030,000	1,030,000	1,030,000	1,030,000	1,030,000	1,030,000	
Marketing		250000	280000	280000	230000	160000	105000	105000	105000	105000	105000	
Hardware + Software		0	0	7000	7000	7000	7000	7000	7000	7000	7000	
<b>Total Cost</b>		1,639,000	1,430,000	1,387,000	1,317,000	1,197,000	1,142,000	1,142,000	1,142,000	1,142,000	1,142,000	
<b>PV of Cost</b>		1524651.16	1237425.64	1116480.31	986170.298	833780.683	739972.054	688346.097	640321.951	595648.326	554091.4661	8916887.982
<b>PV of All Cost</b>		1524651.16	2762076.8	3878557.11	4864727.41	5698508.09	6438480.14	7126826.24	7767148.19	8362796.52	8916887.982	
<b>Yearly NPV</b>	(1,524,651)	47,334	1,616,770	3,475,217	5,784,011	8,978,289	13,697,289	19,795,228	27,145,093	35,877,475	114,892,055	
<b>Cumulative NPV</b>	(1,524,651)	(1,477,317)	139,453	3,614,670	9,398,681	18,376,970	32,074,260	51,869,487	79,014,580	114,892,055		
<b>Return on Investment:</b>	1288.48%											
<b>Break-even Point</b>	2.91374613											

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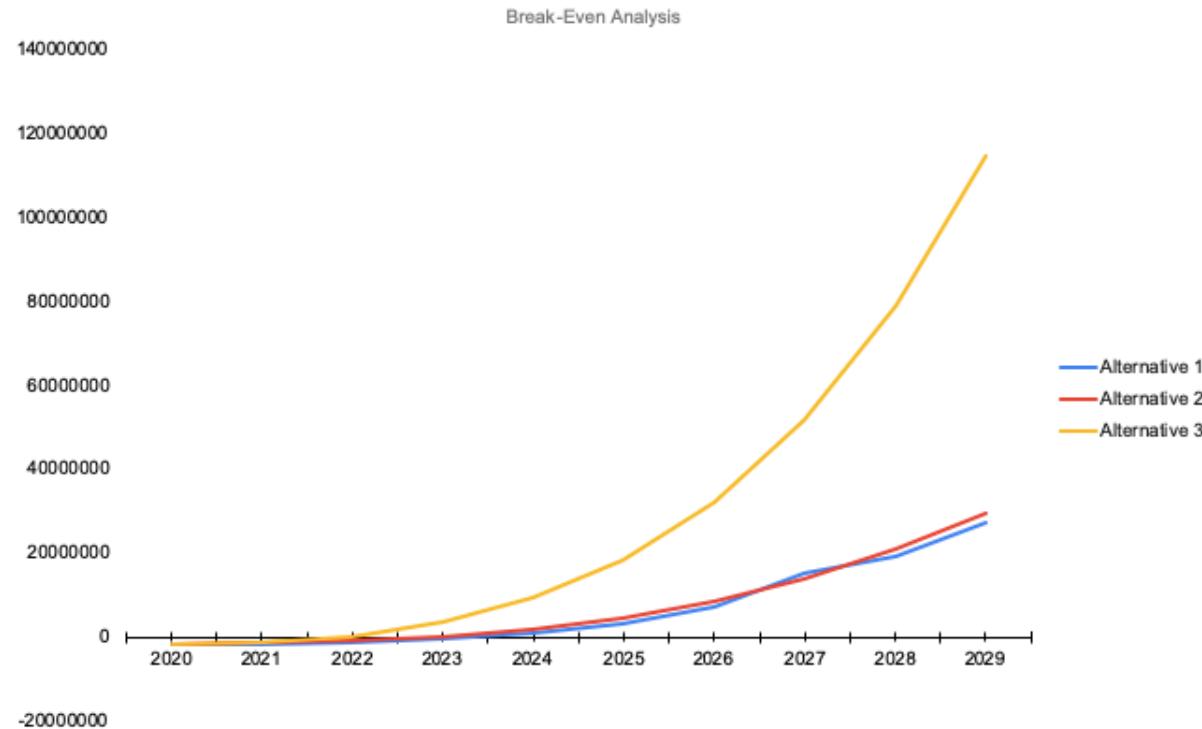
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# Break-even analysis

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# Prototype

## GogoMart Demo ...

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# Backend - product

**Ecommerce**

- Dashboard New
- Products
- Orders
- Customers
- Store Settings

**Email Templates**

**ELEMENTS**

- UI Elements
- Form Elements
- Plugins
- Pages

**PROJECTS**

- Website Redesign

### Add New Product

General Description

Product Title

Product Description

195x140

Img Keywords Select

Filter by Category Filter by Status Actions

Select	Image	Product Title	SKU	Price	Stock	Status
<input type="checkbox"/>		Apple Ipod 4G - Silver	#21362	\$215	1,400	Active
<input type="checkbox"/>		Apple Smart Watch - 1G	#15262	\$455	2,100	Active

### Filter Products

Product SKU # Settings

Price Range(\$)

\$ 0 \$ 1000

Sales Date

01/01/15 01/31/15

Search Categories

Filter by Categories

Search Customers

Filter by Vendor

Search Save Search

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# Backend - store

**Ecommerce**

- Dashboard New
- Products
- Orders
- Customers
- Store Settings**
- Email Templates

ELEMENTS

- UI Elements
- Form Elements
- Plugins
- Pages

PROJECTS

Dashboard Products Orders Customers **Settings**

+ New Order + Add Product + Add Customer

### Owner Details

Account Name:

Account Email:

Account Phone:

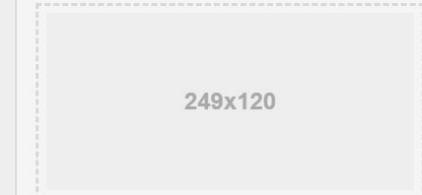
Store Timezone:

### Store Information

### StoreFront Options

Store Name:

Store URL:

Store Image:  249x120

Change

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# Why us

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Management  
Feedback

Resource allocation  
Business model and differentiation

Financial feasibility  
Technical feasibility

Alternatives

In- house development  
Build from scratch through all phases of the development

Outsourcing  
Outsource the entire project including consulting, designing and prototyping

Customized  
Purchase the packaged system and implement workaround

Technical

Functional: 9/10, Technology: 8.5/10, Project Size: 9.5/10, Compatibility: 9/10

Organizational

A system drives traffic, increase brand loyalty, defend margin erosion from competition

Economic

Gross Margin: 30%, ROI: 1288%  
Break-even: 2.9 years

Potential

An initial investment of \$1000000 in the first three years will help system meet expected breakeven point in 3 years, with huge potential in profitability and increased brand value

# Questions?



Thank you.

