E - COMMERCE COMMENT PROJECT

Software Development Plan

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Contents:

1) Overview:

This system encourages people to make a detailed comments by giving discount coupons. The aim here is to increase the sales of the sellers and to increase the satisfaction of the customers.

2) High-Level Functionality:

REQ. #	FUNCTIONAL REQUIREMENTS
#1	System will allow you to see which product have been received comments most and least.
#2	The system will start the necessary work to increase the sales by making detailed comments on the products with low sales due to the low number of comments.
#3	There will be expert in our system that will be hired. Those experts main goal is going to be inspect comments and give rate to them 1 up to 10. Customers will earn the gifts relevant to point they got from experts.
#4	Admins can see which customer shared how many comments and how many gifts they won.
#5	The system shall increase the reliability of the product and the e-commerce site that used.
#6	Since the system shall work with software, there will be no favoritism.
#7	The system will minimize customer grievance.
#8	The system sorts the comments made from top to bottom according to the rating score.

#1	Reliability: When our system crashes the crash report will be sent to system admins immediately by the system. Afterwards, required update will be prepared at the earliest.
#2	Security: Except for the integrated e-commerce site, there will be an account creation system for our system. Furthermore, there will be account locking procedure after user inputs too many wrong attempts and for sure there will be security question answering procedure too.
#3	Localization: The system will support not only all languages supported by the relevant e-commerce site and also currency that site supported.
#4	Compatibility: A system will be compatible with the device that compatible with relevant e commerce site application.
#5	Usability: Since the system will be an integrated system and not only for a specific e-commerce site, it will have a unique user interface. Due to the user's expectations, it will be easy to use and understand.

3) Stakeholders:

#	STAKEHOLDER	DESCRIPTION
	Suppliers	Suppliers are people or businesses who sell goods to your business and rely on you for revenue from the sale of those goods.
	Owners	Owner stakeholders are the owners of an organization. They supply capital or equity to the business and have a say in how everything runs.
	Governments	Government agencies can also be thought of as a major stakeholder in a business. They collect taxes from the company, its employees, and from other spending the company does.
	Media	Every business needs media publication relationships to spread the word about their brand. Businesses often need to interact with press to make an important announcement or advertise their product.
	Investors	Investors can include owners but they can also be outside vendors who typically have a right to accurate and timely information such as regular financial statements.

	Staff and Managers	Staff and Managers have a direct stake in the company. They interact directly with customers, earn money to support themselves, and give support to the business operations as well. Staff and Managers can carry out managerial, supervisory or other functions.
	Customers	Customers are actually stakeholders of a business, in that they are impacted by the quality of service/products and their value.
	Competitors	If you introduce new products to the market, you will quickly attract the attention of competitors. These will primarily expect you to behave fairly in economic terms. They might offer you strategic collaboration. Either way, your actions in the market will have an effect on the actions of your competitors.

4) Project Staffing:

Project Manager

Software Developers

Software Tester

User interface designers

5) Software Process Model:

#	NECESSARY NEEDS FROM THE ORGANIZATIONAL PROCESS
	Arranged team meetings
	An analysis is carried out to identify the necessary business logic, database models, and any other stage-specific requirements.
	Testing process in every iteration.
	Customer that following the progress of the project.
	The entire team, as well as the client, examines the project's state and validates whether it meets the suggested requirement.
	It needs well prepared plan and design. Before the system can be broken down and constructed progressively, it needs a clear and comprehensive definition.
	Before the system can be broken down and constructed progressively, it needs a clear and comprehensive definition.
#	**UNNECESSARY NEEDS FROM THE ORGANIZATIONAL PROCESS**

	Fixed time to complete the next iteration.
	Pre -design of the entire system

SOFTWARE PROCESS NAME: Incremental Model **SOFTWARE PROCESS DESCRIPTION:** **The incremental model is a software development approach that divides requirements into numerous separate modules during the software development cycle. Each module in this model goes through the processes of requirements, design, implementation, and testing. Every release of the module after then adds functionality to the preceding iteration. The procedure is repeated until the entire system is completed.**
SOFTWARE PROCESS MODEL:

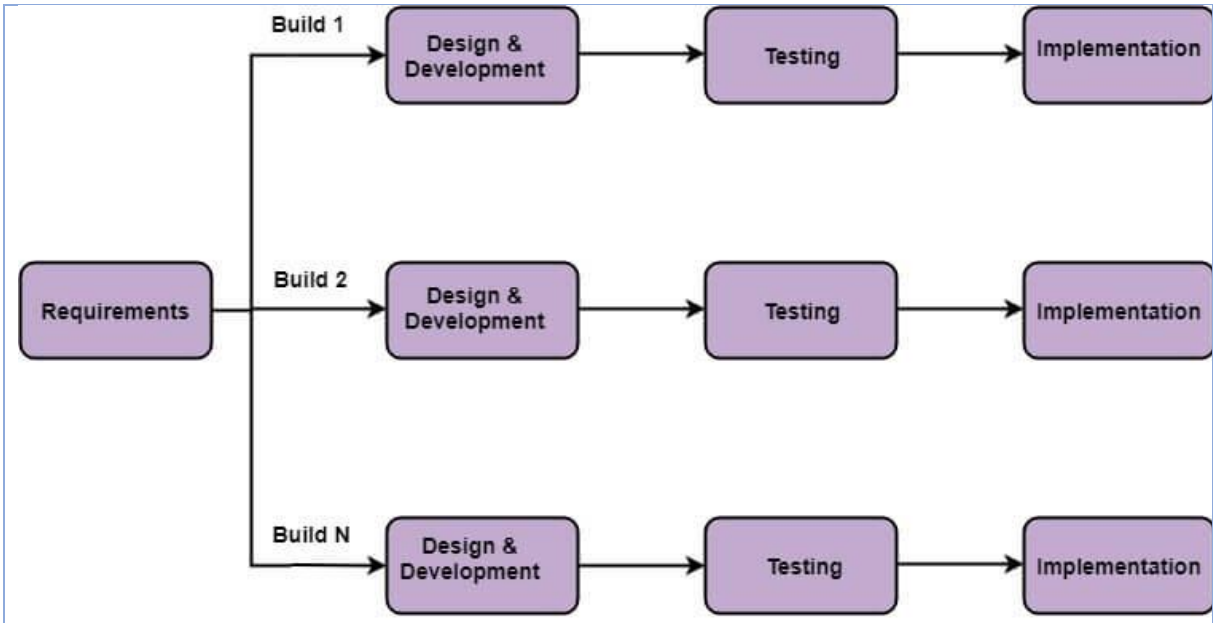


Fig: Incremental Model

REASONS TO CHOOSE THIS MODEL:

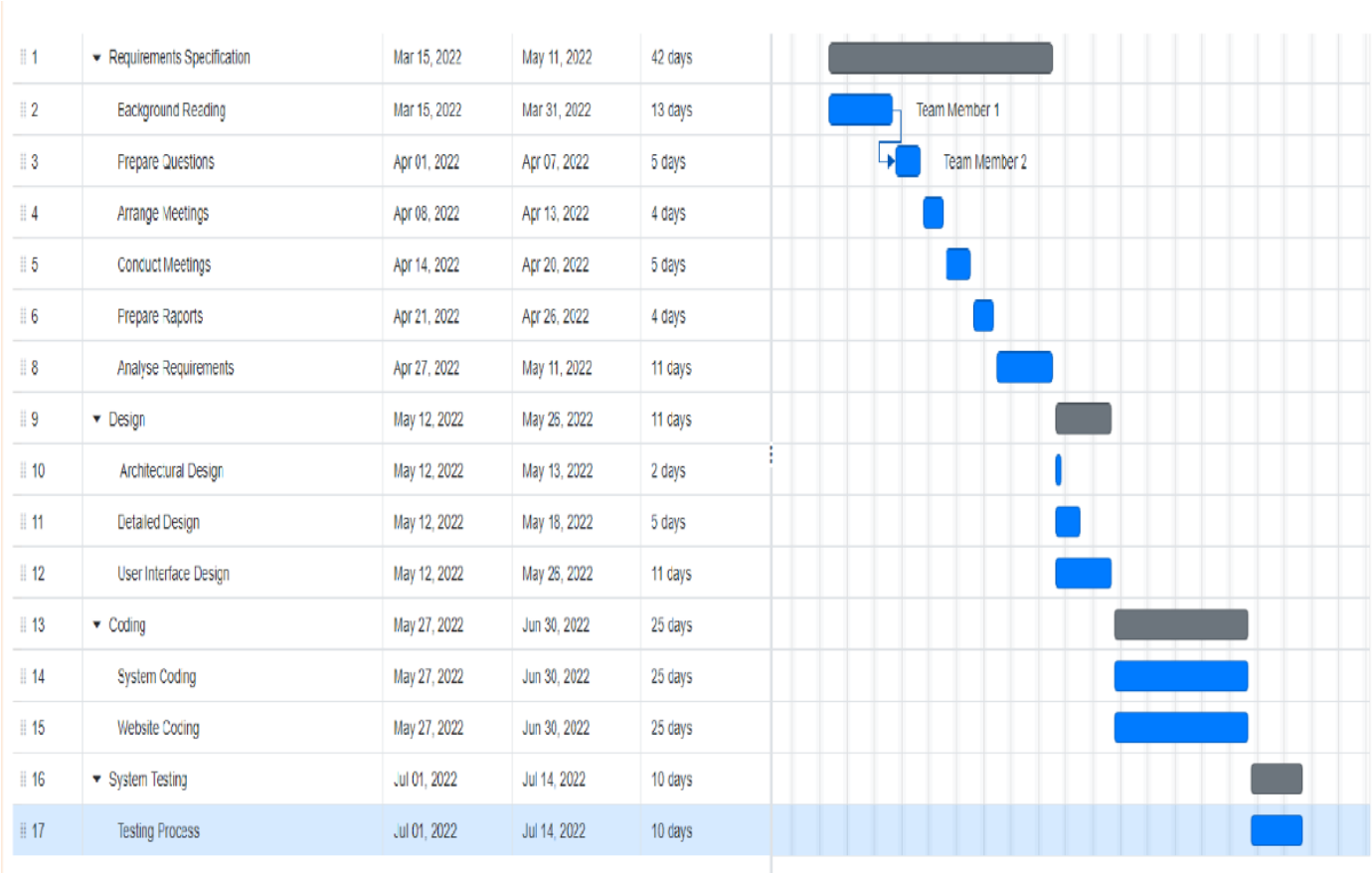
Due to ease of doing test and debug during smaller iterations

Customers can reply to each built in this model. Therefore it provides customer credibility.

If changes will be needed, It will be less expensive to adjust scope and requirements under this model.

Risk is easier to manage since problematic parts are identified and dealt with throughout the iteration process.

6) Schedule and Effort:



1	Requirements Specification	Mar 15, 2022	May 11, 2022	42 days
2	Background Reading	Mar 15, 2022	Mar 31, 2022	13 days
3	Prepare Questions	Apr 01, 2022	Apr 07, 2022	5 days
4	Arrange Meetings	Apr 08, 2022	Apr 13, 2022	4 days
5	Conduct Meetings	Apr 14, 2022	Apr 20, 2022	5 days
6	Prepare Raports	Apr 21, 2022	Apr 26, 2022	4 days
8	Analyse Requirements	Apr 27, 2022	May 11, 2022	11 days
9	Design	May 12, 2022	May 26, 2022	11 days
10	Architecural Design	May 12, 2022	May 13, 2022	2 days
11	Detailed Design	May 12, 2022	May 18, 2022	5 days
12	User Interface Design	May 12, 2022	May 26, 2022	11 days
13	Coding	May 27, 2022	Jun 30, 2022	25 days
14	System Coding	May 27, 2022	Jun 30, 2022	25 days
15	Website Coding	May 27, 2022	Jun 30, 2022	25 days
16	System Testing	Jul 01, 2022	Jul 14, 2022	10 days
17	Testing Process	Jul 01, 2022	Jul 14, 2022	10 days

7) Measurements:

Questions to identify measurements:

- When will it be completed ? How much time and work did this project necessitate? How far has the team progressed ?
- How far has the team progressed ?

Identified measurements:

- Schedulation: How much time we need for accomplish project
- Effort: Calculate how much effort each different member of the team will put in
- Product development throughout time

Measurement storage and collection:

- If a problem will be discovered at the end of the every iteration, reconsider the necessity for the measurement and make any necessary adjustments.

Measurement Type	Description	Example Measurements
Direct Measurement	How long it takes the product to develop. We can measure this by looking at the date we finished the development from the date we started.	Lines of code
Indirect Measurement	The measurements will be analyzed on a review meeting basis by counting which person spent how many hours time, which is develop product from to start to finish The measurements will be analyzed on a review meeting basis by counting which person spent how many hours	Effort
Direct Measurement	The measurements will be used for measure the numbers of users.	Number of users
Direct Measurements	The measurements will be used for measure the numbers of discount coupon.	Number of discount coupon

8) Project Risks:

LIKELIHOOD RANK	RISK DESCRIPTION
1	External risks: There are also external risks worth considering. External risks can include unpredictable factors like changes in laws, economic shifts and natural disasters.
2	Design complexity : The team has no prior experience with the deployment platform or protocol.
3	Testing : Because the deployment platform has not yet been purchased or deployed, testing the product will be challenging.
4	Debugging: Debugging will be challenging because a flaw may not be visible right away, necessitating the usage of transaction logging.
5	Stakeholders issues : Another software development risk is stakeholder issues like low engagement and inaccurate expectations. It's important to communicate with stakeholders effectively so that they understand software development projects and engage with your software development team.

6	Training: The team will need to quickly learn how to use the development and deployment platforms.
7	Installation: Over a three- to five-year period, the team must design a configuration and installation process that supports consecutive versions of published software.
8	Poor risk management: Poor risk management can be a risk itself. Good risk management is essential for software development teams to spot risks and effectively respond to them.

IMPACT RANK	**RISK DESCRIPTION**
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LIKELIHOOD RANK	IMPACT RANK	COMBINED RANK	RISK DESCRIPTION
3	1	4	Testing : Because the deployment platform has not yet been purchased or deployed, testing the product will be challenging.
4	2	6	Debugging: Debugging will be challenging because a flaw may not be visible right away, necessitating the usage of transaction logging.
2	4	6	Design complexity : The team has no prior experience with the deployment platform or protocol.
5	3	8	Stakeholders issues : Another software development risk is stakeholder issues like low engagement and inaccurate expectations. It's important to communicate with stakeholders effectively so that they understand software

			development projects and engage with your software development team.
1	7	8	External risks: There are also external risks worth considering. External risks can include unpredictable factors like changes in laws, economic shifts and natural disasters.
6	6	12	Training: The team will need to quickly learn how to use the development and deployment platforms.
8	5	13	Poor risk management: Poor risk management can be a risk itself. Good risk management is essential for software development teams to spot risks and effectively respond to them.
7	8	15	Installation: Over a three- to five-year period, the team must design a configuration and

			installation process that supports consecutive versions of published software

9) Software Tools:

TASK #	PROJECT TASKS WHICH REQUIRE SOFTWARE TOOL SUPPORT
1	System arrangement
2	Designing user interface
3	Development Process

SOFTWARE TOOLS FOR TASK 1:

Tool Cost/Training/Functionality Data

Tool	Github	Google Cloud Source Repositories	Bitbucket	Gitlab
Cost	40 $ / year	Free	60 $ / year	228 $ / year
Training Days	8	5	10	12
Functionality	30	20	40	70

Normalized Cost/Training/Functionality Data

Tool	Github	Google Cloud Source Repositories	Bitbucket	Gitlab
Cost	17,5438	0	**26,3157**	100
Training Days	66,6666	41,6666	**83,3333**	100
Functionality	42,8571	28,5714	**57,1428**	100

Normalized Tool Graph

Which tool has been selected? Why?

We choose Gitlab because it has many advanteges, more flexible for wider range of version control systems than the other tools. Furthermore, it's learning time is not too long.

SOFTWARE TOOLS FOR TASK 2:

Tool Cost/Training/Functionality Data

Tool	Axure	Balzamiq	Sketch	inVision Studio
Cost	50 $ /month	10 $ /month	9 $ /month	8 $ /month
Training Days	20	14	10	7
Functionality	80	40	35	30

Normalized Cost/Training/Functionality Data

Tool	Axure	Balzamiq	Sketch	inVision Studio
Cost	100	20	**18**	16
Training Days	100	70	**50**	35
Functionality	100	50	**43,75**	37,5

Normalized Tool Graph

Which tool has been selected? Why?
We choose Balzamiq because of when we consider the cost, usefulness, training days these are the best options for our project.

SOFTWARE TOOLS FOR TASK 3:

Tool Cost/Training/Functionality Data

Tool	C++	Java	Phyton	C#
Cost	80 $ / month	50 $ / moth	free	45 $ / month
Training Days	8	6	3	5
Functionality	75	60	10	50

Normalized Cost/Training/Functionality Data

Tool	C++	Java	Phyton	C#
Cost	100	62,5	**0**	56,25
Training Days	100	75	**37,5**	62,5
Functionality	100	80	**13,3333**	66,6666

Normalized Tool Graph

Which tool has been selected? Why?
We choose Java because of when we consider the cost, usefulness, training days these are the best options for our project.

10) Project Needs:

#	SOFTWARE NEEDS	DESCRIPTION
	IDE	The Developer team needs to use Integrated Development Environment (IDE) for implement the coding parts. IntelliJ IDEA is preferred because it supports iOS and Android devices in addition to its comprehensive database editor.

	Database Tools	The Database Tools used to store the data of the users and objects in the project were chosen as Java considering the functionality, cost, and training days.
	Software Management Tools	It is used to follow the schedule of the project and not to miss it. Gitlab is preferred because of its ease of use.
	Source Control Tools	It should be used to follow the development of the project and the codes regularly. The development team has found it appropriate to use GitHub due to its ease of use and usefulness.
	Web Design Tools	Balzamiq is the web design tools chosen considering the ease of use, which will also be designed as a web site.

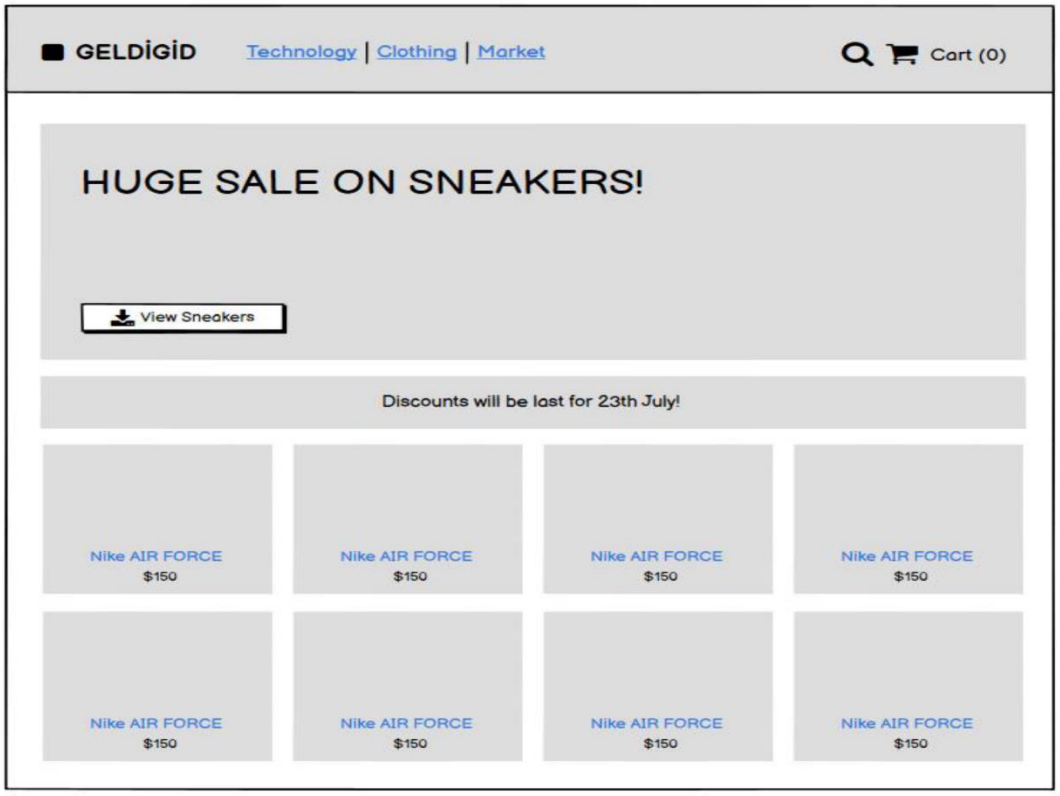
#	HARDWARE NEEDS	DESCRIPTION
	RAM	It'll give transitory capacity space for information and program codes that your computer is as of now utilizing. Designer Group can work on more errands at the same time so that the method will be speedier. Higher Smash capacity will grant superior comes about. In this manner, at slightest 8GB of Slam is prescribed.
	Desktop PC	The Designer Group will spend hours working on the coding. Desktop PC utilize will diminish complexity and give a reasonable workspace in terms of efficiency.
	Mobile Phone for Testing Aplication	For testing the application that work with no mistake conjointly to make the design of the application, group ought to have the right versatile phone.
	Hard Drive (SSD)	The use of SSD instead of HDD in the project construction process will speed up the computing process of the computer. It is recommended that the SSD should be at least 256 GB.
	Processor (CPU)	The processor has the capacity to handle billions of commands per moment and performs the required operation on the computer in a

		brief time. Therefore, many centers and strings within the processor permit quicker and more proficient work. This will empower the engineer group to run more than one program at the same time. It is prescribed to utilize effective processors such as Intel i7 or i9 as processor amid the construct prepare.
	Keyboard	The consolation and quality of the console in a roundabout way influences the speed of the engineer group. Hence, the console ought to be chosen carefully.

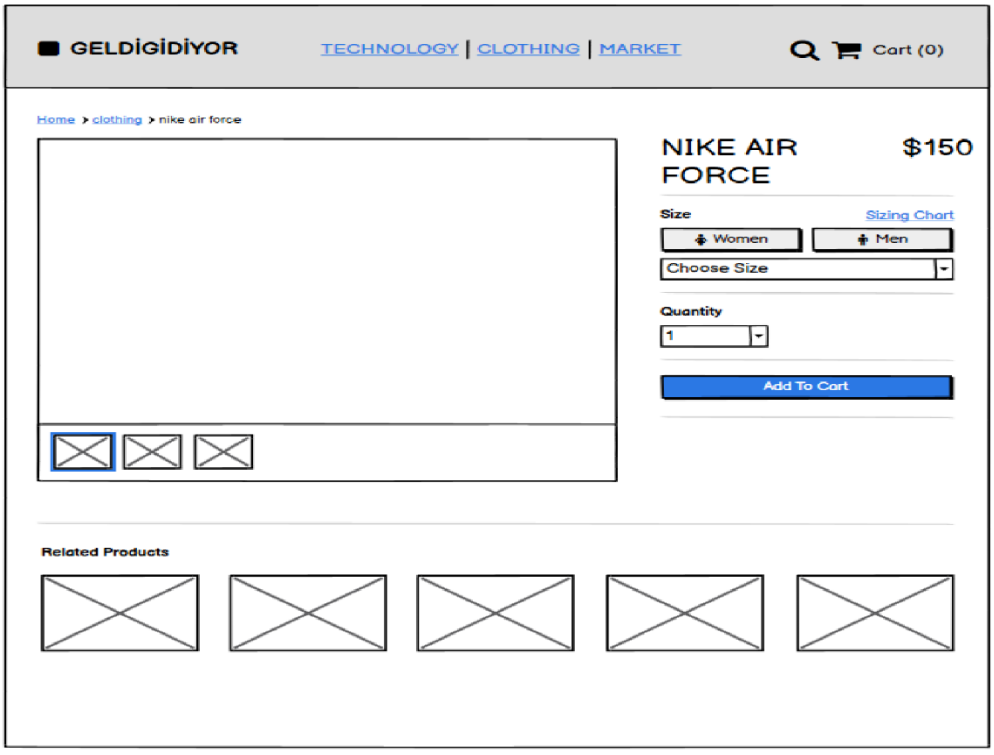
#	SUPPORT NEEDS	DESCRIPTION
1	Web Browser	We need web browser for searching.
2	OS (Android, IOS)	The application must be supported through the App store and Google Play.
3	Certificated Courses	To have the ability of implementing the project, group members have ta get certificate and learn the subject.
4	Stack Overflow	To access the other projects codes to improve the project code.

11) Graphical User Interfaces:

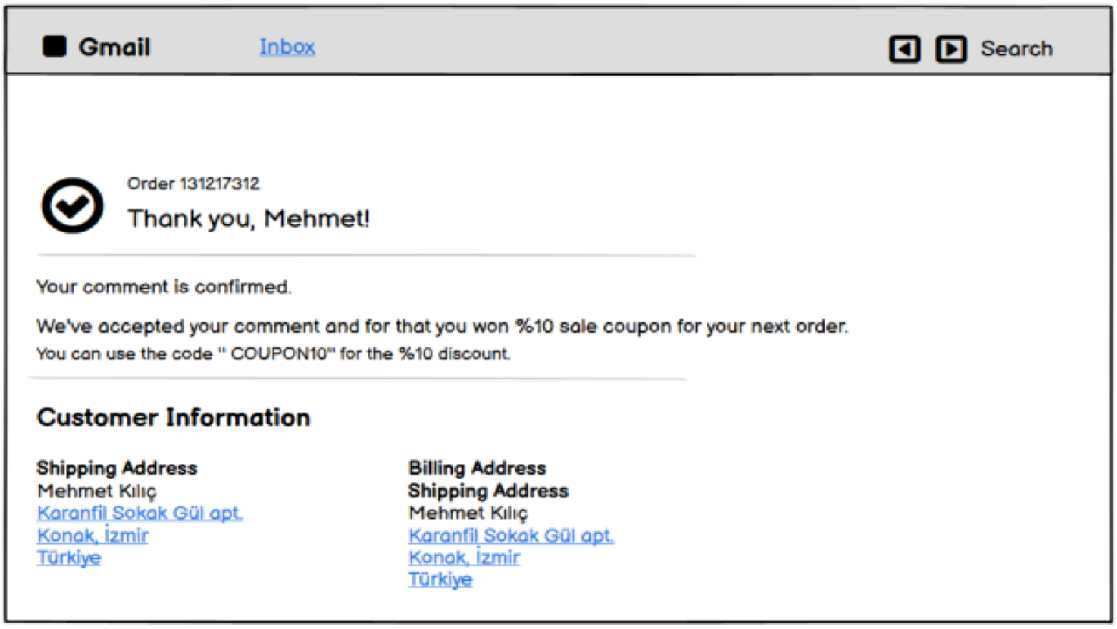
Main page of e-commerce site



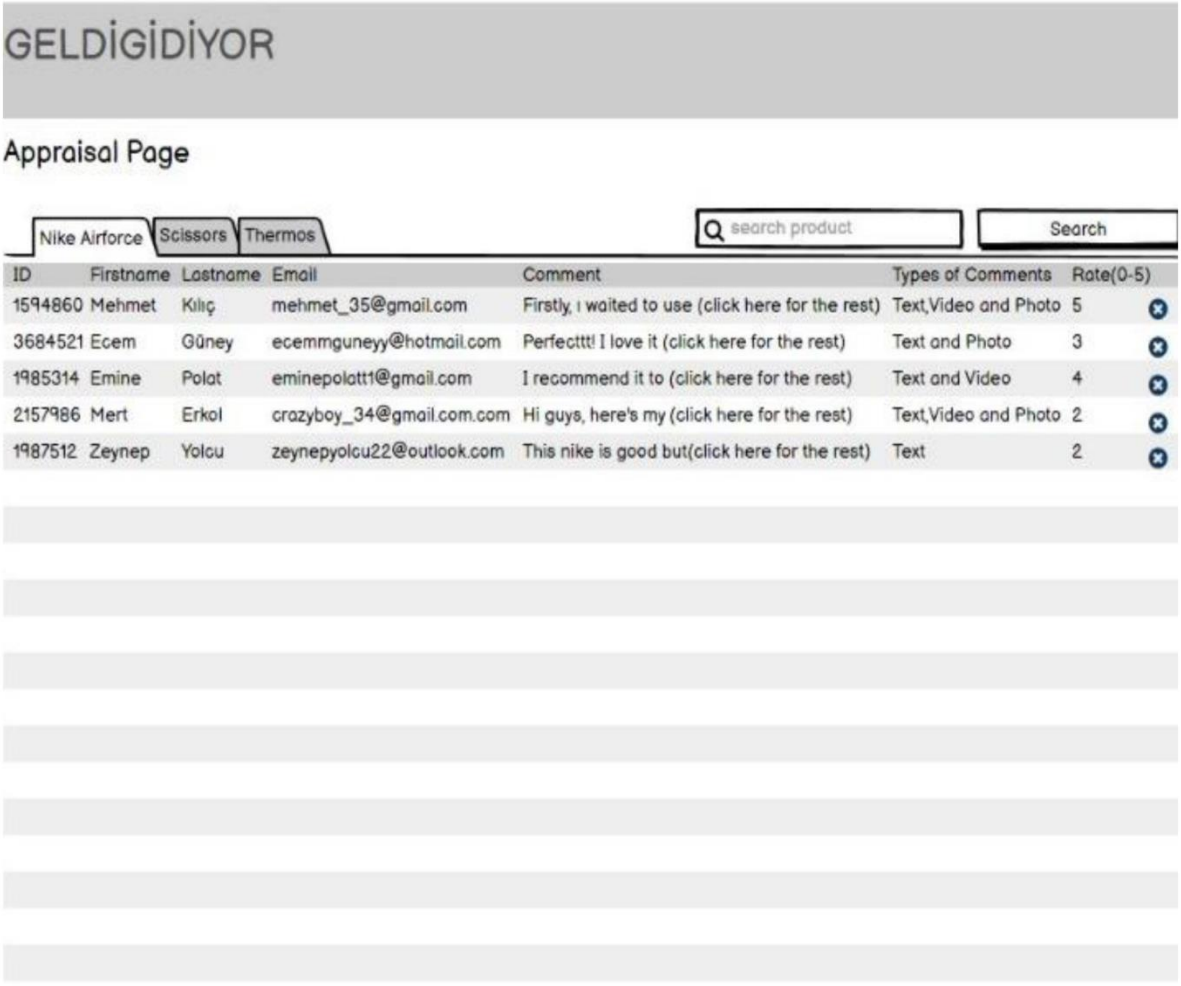
Spesific product screen



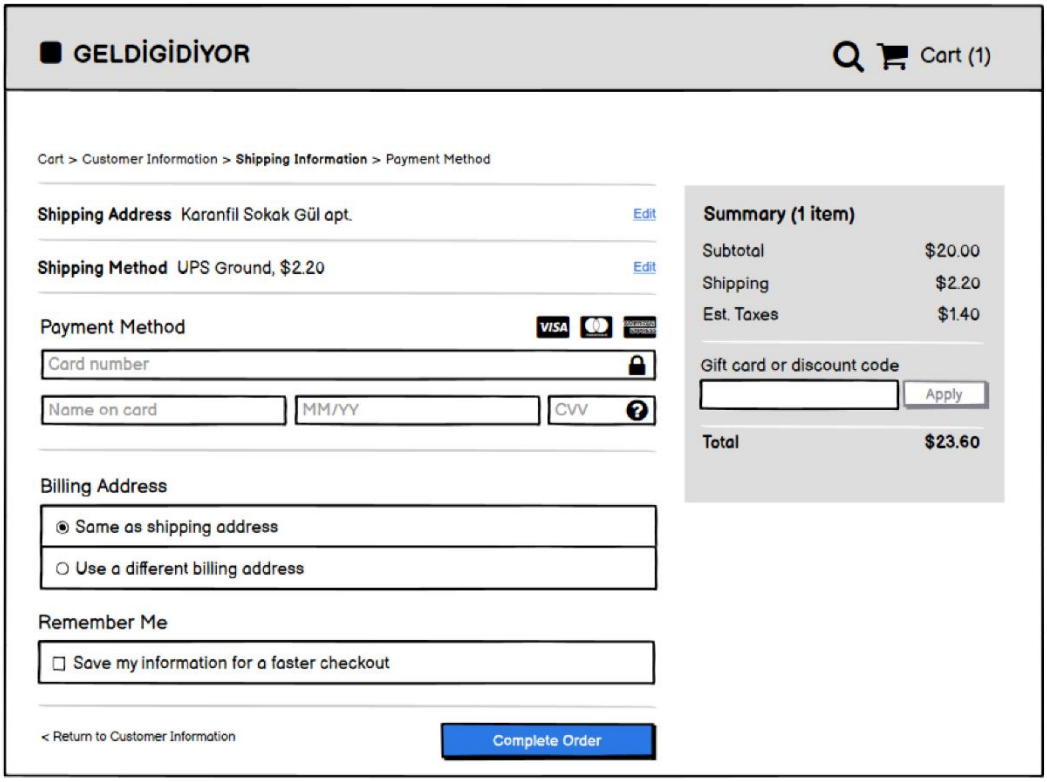
Gift acceptence page



Apprasial page



Shipping info page



12) Conclusion:

We designed a project which is a win win for customers and sellers. We planned to increase number of detailed comments on a spesific product and its gonna be like, when they are upload video, photo and text comments its gonna be rated by Expert and customer can be win a discount coupon. Expert gonna check comments and rate them 1to 5. Also when someone upload irrelevant video, photo and text, the expert gonna detect that and gave it a low rate.