

**NED University of Engineering & Technology**  
**Computer & Information Systems Engineering**  
**Department**



**COMPLEX ENGINEERING PROBLEM**

<b>Course Code/ Title</b>	<b>Object Oriented Programming(CS-116)</b>
<b>Group Members</b>	<b>Group ID : 8</b> <b>Aqsa Asif (CS - 039)</b> <b>Hamna Khan (CS - 048)</b> <b>Syed Wahaj Raza Zaidi (CS - 055)</b> <b>Syeda Maria (CS – 010)</b>
<b>Class</b>	<b>FIRST YEAR (F.E)</b>
<b>Group Number</b>	<b>G2</b>

**Submitted to : Miss Fauzia Yasir**

## DEPARTMENT OF COMPUTER &amp; INFORMATION SYSTEMS ENGINEERING

## BACHELORS IN COMPUTER SYSTEMS ENGINEERING

Course Code: CS-116

Course Title: Object Oriented Programming

Complex Engineering Activity

FE Batch 2021, Spring Semester 2022

Grading Rubric

TERM PROJECTGroup members:

Student No.	Name	Roll No.
S1	SYEDA MARIA	CS-010
S2	AQSA ASIF	CS-039
S3	HAMNA KHAN	CS-048
S4	SYED WAHAJ RAZA ZAIDI	CS-055

CRITERIA AND SCALES				Marks Obtained			
				S1	S2	S3	S4
Criterion 1: Does the application meet the desired specifications and produce the desired outputs? (CPA-2)							
1	2	3	4				
The application does not meet the desired specifications and is producing incorrect outputs.	The application partially meets the desired specifications and is producing incorrect or partially correct outputs.	The application meets the desired specifications but is producing incorrect or partially correct outputs.	The application meets all the desired specifications and is producing correct outputs.				
Criterion 2: How well is the code organization?							
1	2	3	4				
The code is poorly organized and very difficult to read.	The code is readable only to someone who knows what it is supposed to be doing.	Some part of the code is well organized, while some part is difficult to follow.	The code is well organized and very easy to follow.				
Criterion 3: How friendly is the application interface? (CPA-2)							
1	2	3	4				
The application interface is difficult to understand and use.	The application interface is easy to understand and but not that comfortable to use.	The application interface is very easy to understand and use.	The application interface is very interesting/innovative and easy to understand and use.				
Criterion 4: How does the student performed individually and as a team member? (CPA-1, CPA-2)							
1	2	3	4				
The student did not work on the assigned task.	The student worked on the assigned task, and accomplished goals partially.	The student worked on the assigned task, and accomplished goals satisfactorily.	The student worked on the assigned task, and accomplished goals beyond expectations.				
Criterion 5: Does the report adhere to the given format and requirements?							
1	2	3	4				
The report does not contain the required information and is formatted poorly.	The report contains the required information only partially but is formatted well.	The report contains all the required information but is formatted poorly.	The report contains all the required information and completely adheres to the given format.				
Total Marks:							

**TERM PROJECT TITLE:*****ONLINE SHOPPING CART*****PROJECT DESCRIPTION:**

Online shopping cart is a virtual shopping trolley, where shoppers can put all of their want-to-buy products in, review to make adjustments in quantity, product attributes, etc. and remove it before or during the checkout if they change their mind.

**DISTINGUISHING FEATURES:**

The distinguishing features of our project are:

❖ Administrator account as well to:

*Admin (CLI) is required to enter the **USERNAME (I.e.: Admin)** and **PASSWORD (I.e.: 123)** to get access to below mentioned features.*

- Take credentials of user for registering.
- Once registered, user is allowed to login.
- View and remove customers
- Search products and related information.
- Updating and removing products.

❖ Customer account to facilitate by:

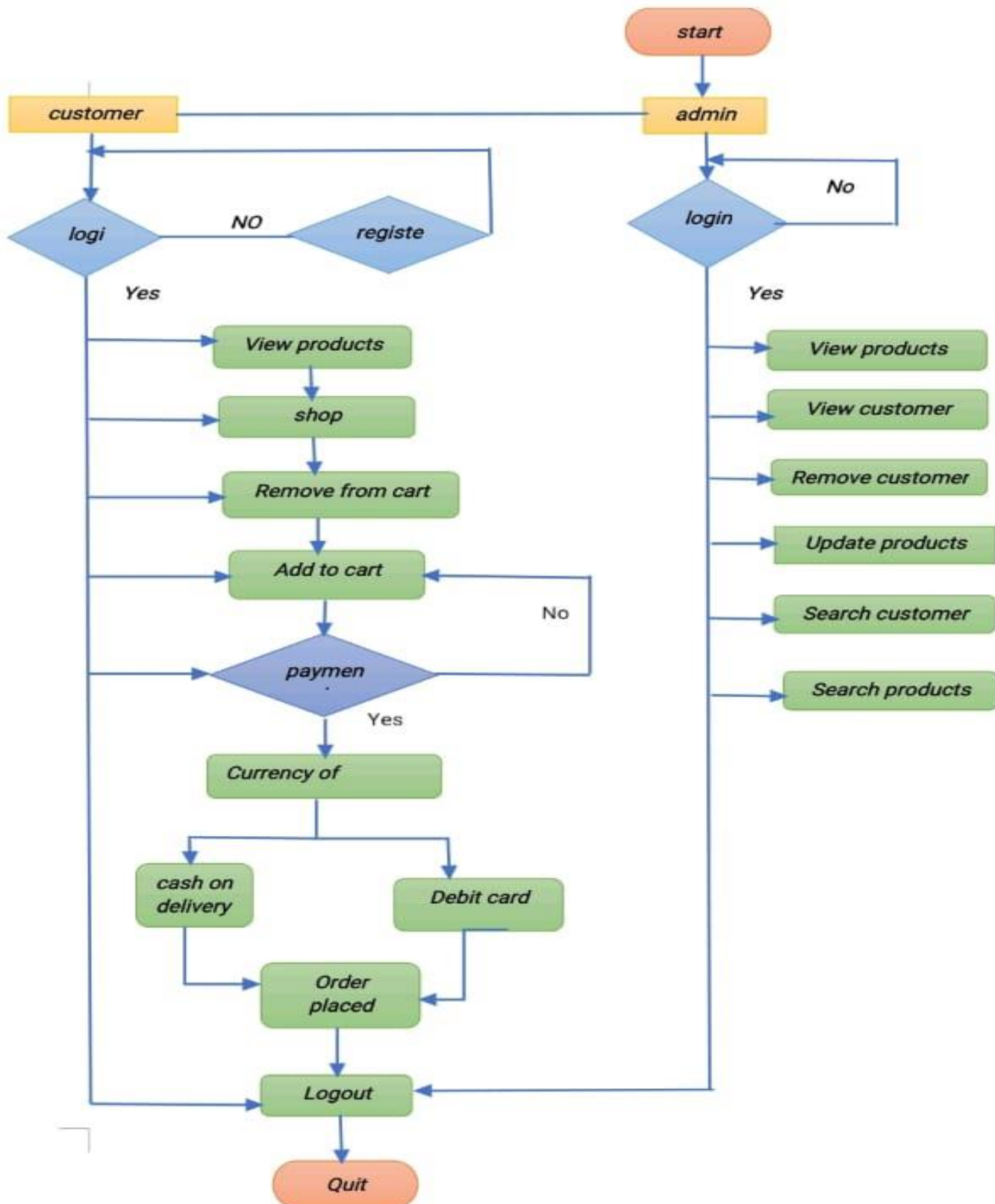
- Displaying products.
- Searching products.
- Add products to cart initially.
- Add more items.
- Remove items from the cart.
- View products in the cart.
- Checking out the order and proceed towards payment.
- Different payment methods are also provided.
- Choice of currency to be paid is also given.
- Order history is also being maintained.

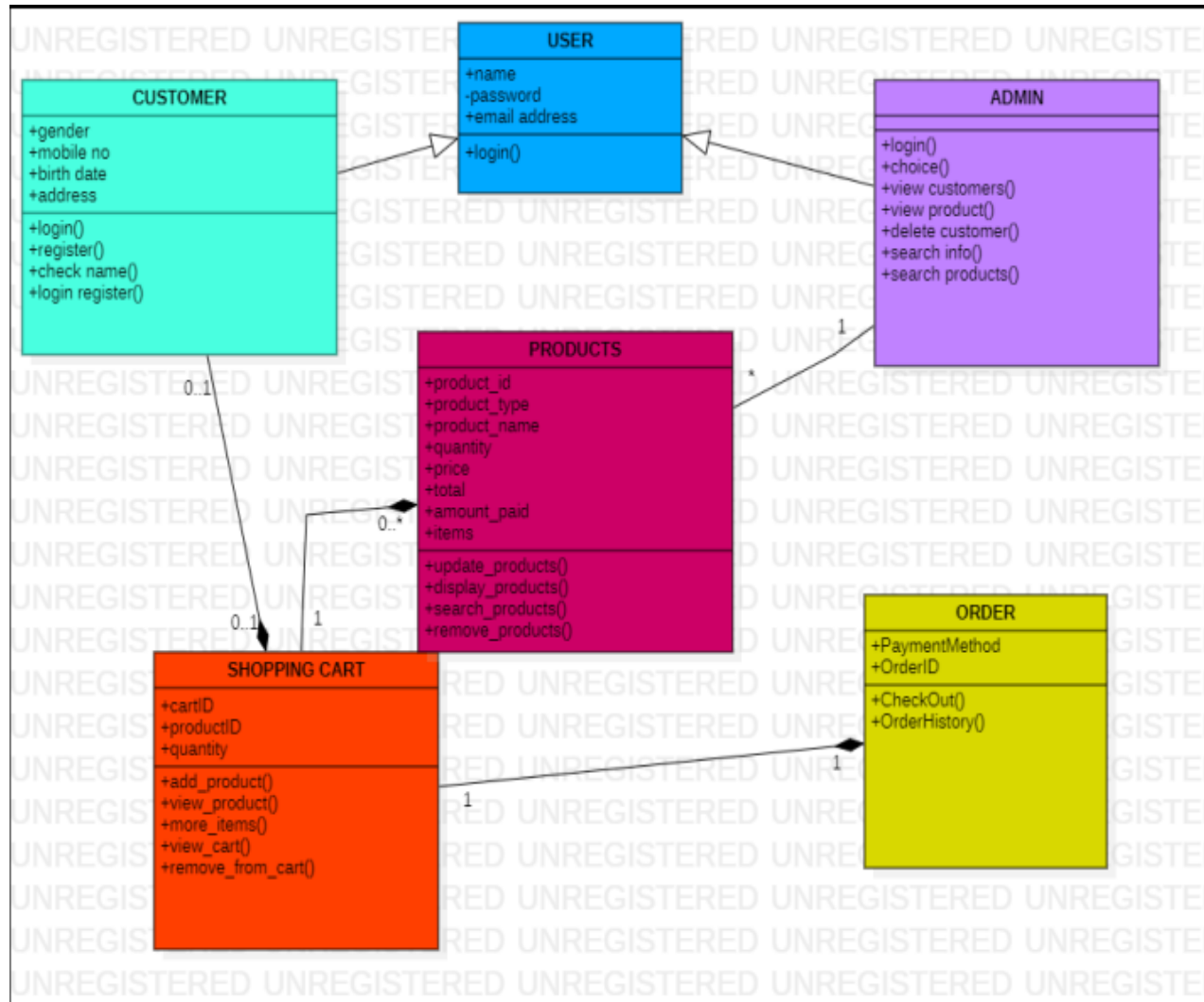
- ❖ *Django based website* interface for the application.
- ❖ Our application must exhibit the following object-oriented features:
  - Inheritance
  - Association
  - Method overriding
  - Operator overloading
  - Abstract classes
  - Exception handling

### **Website Implementation:**

#### **ACCESSING WEBSITE:**

- ❖ How to Start the Django Project (Website):
  - Go to the directory where "manage.py" file of your Django project is present.ie: "**My\_Cart**" Directory, and open PowerShell window here.
  - Download the dependencies through requirement.txt file using command:  
*pip install -r requirements.txt*
  - Then run start server command in your PowerShell window.  
*python manage.py run server.*
  - Open the address <http://127.0.0.1:8000/> in your browser, and you will be able to see the project
- ❖ For admin panel (Website ie: login as superuser):
  - Username: admin**
  - Password: 123**

**FLOWCHART OF PROJECT:**

**UML DIAGRAM:**

**MOST CHALLENGING PART WHILE WORKING:**

Apart the fact that there weren't such troubling challenges faced while working on the project, but we can count on some like running the projects from different aspects, while trying to shorten the code for efficiency purposes, the compilation of entire code and doing test runs for the purpose of detecting and resolving any errors, also the project was earlier made without the web part but to make it more efficient, combining caused a little wearisome in data-handling but it was overall worth it at the end.

**NEW FEATURES EXPLORED WHILE WORKING:**

- ❖ Json
- ❖ Exception Handling
- ❖ Website
- ❖ Data Handling
- ❖ Designing sitemaps on Django

**INDIVISUAL CONTRIBUTION:**

Although a significantly large part of the main code file was done together:

Some of the individual contributions are as follows:

**1. SYED WAHAJ RAZA ZAIDI:**

- Website development.
- Data handling through pandas.
- Creating the ORDER class.

**2. SYEDA MARIA:**

- Created the CART class.
- Created the relevant files.
- Worked on the flowchart of the application.

**3. HAMNA KAHN:**

- Created the PRODUCT class.
- Created the files containing the data and record of products in a particular format.
- Did the report working of the CEP.

#### **4. AQSA ASIF:**

- Created ADMIN class.
- Created CUSTOMER class.
- Created USER class
- Implemented Json in these classes.

#### **FUTURE EXPANSION:**

A project can never be regarded as complete as there is always room for further enhancements.

-Work on GUI and be done for enhancements.

-More categories for the selection of items to the customer can be made available.

-Access to the discount codes and sale items can be a very prominent feature of this Django based web application.

-Work on an online delivery service can be done with mentioning the on which the products parcel will be delivered on the specified location.

-Customers can be kept updated with the offers and promotions can be made on the given e-mail or contact number.



**TEST CASE RUNS:****1. CUSTOMER BLOCK:****a. Customer logging in and viewing products:**

```
Enter Username:
>>> peter.parker
Enter Password:
>>> peter1234
```

Login Successful.

Hi Peter parker !!

Enter your Choice:

- 1) View Products
  - 2) Logout
  - 3) Shop
  - 4) My Orders
  - 5) Previous Order History
- >>> 1

	ID	NAME	PRICE	CATEGORY	SUBCATEGORY	QUANTITY
0	1	LENOVOIDEAPAD	100000	ELECTRONICS	LAPTOPS	0
1	2	APPLE MACBOOK PRO 16	540000	ELECTRONICS	LAPTOPS	0
2	3	MICROSOFT SURFACE 4 LAPTOP	400000	ELECTRONICS	LAPTOPS	0
3	4	HUAWEI MATEBOOK X PRO	250000	ELECTRONICS	LAPTOPS	0
4	5	DELL XPS 17 9710	520000	ELECTRONICS	LAPTOPS	0
5	6	ASUS ZENBOOK 13	150000	ELECTRONICS	LAPTOPS	0
6	7	SAMSUNG GALAXY A33	69000	ELECTRONICS	SMARTPHONES	20000
7	8	APPLE IPHONE 13	270000	ELECTRONICS	SMARTPHONES	15000

9	10	HUAWEI Y6s	20500	ELECTRONICS	SMARTPHONES	40000
10	11	NOKIA G20	23500	ELECTRONICS	SMARTPHONES	60000
11	12	SAMSUNG GALAXY WATCH 4	44000	ELECTRONICS	SMARTPHONES	70000
12	13	APPLE WATCH SERIES 7	120000	ELECTRONICS	SMARTPHONES	35000
13	14	HUAWEI WATCH GT 3 PRO 46	75000	ELECTRONICS	SMARTPHONES	55000
14	15	XIAOMI REDMI WATCH 2 LITE	11000	ELECTRONICS	SMARTPHONES	35000
15	16	AMAZFIT GTS 2 MINI	18000	ELECTRONICS	SMARTPHONES	70000
16	17	APPLE IMAC M1 PC	310000	ELECTRONICS	COMPUTERS	9000
17	18	HP PAVILION	250000	ELECTRONICS	COMPUTERS	10000
18	19	ASUS ZEN AIO 24 M5401	158000	ELECTRONICS	COMPUTERS	13000
19	20	DELL INSPIRON 24 DT 5400	174000	ELECTRONICS	COMPUTERS	34000
20	21	SAMSUNG 4K ULTRA HD LED SMART TV	350000	ELECTRONICS	SMART TV	25000
21	22	LG ULTRA HD NANO CELL LED SMART TV	154000	ELECTRONICS	SMART TV	4600
22	23	SKYWORTH 4K ULTRA HD DLED SMART TV	164000	ELECTRONICS	SMART TV	7500
23	24	HAIER 4K ULTRA HD OLED SMART TV	300000	ELECTRONICS	SMART TV	34000
24	25	TCL 4K ULTRA HD MINI LED ANDROID TV	212000	ELECTRONICS	SMART TV	34000
25	26	XBOX SERIES X-HALO INFINITE	86000	VIDEO GAMES	XBOX	480
26	27	XBOX SERIES X	96000	VIDEO GAMES	XBOX	500
27	28	XBOX ONE	87500	VIDEO GAMES	XBOX	1200
28	29	XBOX ONE-S	99500	VIDEO GAMES	XBOX	1000
29	30	MARIO STRIKER	7600	VIDEO GAMES	NINTENDO	520
30	31	POKEMAN LEGENDS	5600	VIDEO GAMES	NINTENDO	480
31	32	THE LEGEND OF ZENDA	45000	VIDEO GAMES	NINTENDO	666
32	33	XENOBLADE CHRONICLES	7800	VIDEO GAMES	NINTENDO	998
33	34	LEGO STARWARS	9875	VIDEO GAMES	NINTENDO	750
34	35	ARCADE1UP 12-IN-1 LEGACY	130000	VIDEO GAMES	ARCADE	750

```
select the id of the item you want to buy:
```

```
>>> 65
```

```
How many do you want:
```

```
>>> 1
```

```
CATEGORY:MUSIC
```

```
=====
```

```
1. NAME: CLASSICAL
```

```
2. PRICE: 5800
```

```
3. SUBCATEGORY: COMICS
```

```
4. QUANTITY: 1
```

```
5. ID: 65
```

```
Remaining Items: 2644
```

```
Checkout? (y/n)
```

```
>>> y
```

```
Choose An Option:
```

```
1) Add To Cart
```

```
2) Remove From Cart
```

```
3) Pay
```

```
4) Quit Shopping
```

```
>>> 3
```

```
select the id of the item you want to buy:
```

```
>>> 65
```

```
How many do you want:
```

```
>>> 1
```

```
CATEGORY:MUSIC
```

```
=====
```

```
1. NAME: CLASSICAL
```

```
2. PRICE: 5800
```

```
3. SUBCATEGORY: COMICS
```

```
4. QUANTITY: 1
```

```
5. ID: 65
```

```
Remaining Items: 2644
```

```
Checkout? (y/n)
```

```
>>> y
```

```
Choose An Option:
```

```
1) Add To Cart
```

```
2) Remove From Cart
```

```
3) Pay
```

```
4) Quit Shopping
```

```
>>> 3
```

## 2. ABMIN BLOCK:

### a. Search customer:

```
Enter your choice:
1) View products
2) View customer information
3) Remove customer
4) Update products
5) Search Customer
6) Search Product
7) Logout
>>> 5
Enter query:
>>> peter
found 1 result(s)
1. NAME:peter parker
2. PASSWORD:peter1234
3. EMAIL ADDRESS:patermcu@gmail.com
4. ADDRESS:MCU street no.11
5. GENDER:Male
6. MOBILE NUMBER:03335678943
7. BIRTH DATE:4/7/1998
8. CART:[]
9. HISTORY:[{'id': 65, 'name': 'CLASSICAL', 'price': 5800, 'category': 'MUSIC', 'subcategory': 'COMICS', 'quantity': 1, 'date_of_purchase': '2022-07-24 11:50'}
```

**b. view customer:**

```
ID: 8
USERNAME: PETER PARKER
PASSWORD: peter1234
EMAIL ADDRESS: patermcu@gmail.com
ADDRESS: MCU street no.11
MOBILE NUMBER: 03335678943
GENDER: Male
CART: []
HISTORY: [{'id': 65, 'name': 'CLASSICAL', 'price': 5800, 'category': 'MUSIC', 'subcategory': 'COMICS', 'quantity': 1, 'date_of_purchase': '2022-07-24 11:56:45'}]

>>> TOTAL NUMBER OF CUSTOMERS: 9

Enter your choice:
1) View products
2) View customer information
3) Remove customer
4) Update products
5) Search Customer
6) Search Product
7) Logout
```

### 3. WEBSITE BLOCK:


#### i. Home Page

CEP OOP [OOPCEP@gmail.com](mailto:OOPCEP@gmail.com)



[Admin](#) [★ Your Order](#) [★ Contact Us](#) [Checkout](#) [Cart 0](#) [Login](#)

[Home](#) [Shop](#) ▾

Search 

## MY CART

### Happy Shopping

First made waves in Pakistan's e-commerce market after its introduction in 2022. We have since grown to become Pakistan's largest platform for online shopping with a network spread across Asia in Pakistan.

[Our Products](#)



MOBILE / MOBILE ACCESSORIES +  
MEN GARMENTS +  
COMPUTER / LAPTOPS +  
ELECTRONICS +

#### BRANDS

APPLE  
SAMSUNG  
TECNO  
GUL AHMED  
THE HOME STORE



**Rs.1000**

T shirt for Men

 Add to cart

 View Product



**Rs.200000**

I phone 13 pro max

 Add to cart

 View Product









**Rs.80000**

Samsung Galaxy S 20

 Add to cart

 View Product


## ii. Cart :

				Clear Cart
Item	Price	Quantity	Total	
 T shirt for Men	Rs. 1000	+ 1 -	Rs.1000	
 I phone 13 pro max	Rs. 200000	+ 2 -	Rs.400000	
 Dark Basic Kurta	Rs. 3500	+ 1 -	Rs.3500	
Sub Total:			404500.0	

[Check Out](#)

## iii. Contact us Page

CONTACT US



GET IN TOUCH

CONTACT INFO

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