



Programming 1 (STIA1113)

PROJECT TOPIC :
COMMUNICATION

(INTERNET, MOBILE PHONE, LAPTOP, SATELLITE, TV)

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1. BACKGROUND OF THE PROJECT

1.1 Understand The Problem

1.1.1 Internet

The Internet protocol suite (TCP/IP) is used to communicate between networks and devices in a global system of interconnected computer networks. It is a community of network made up of neighborhood to world private, public, academic, business and government networks linked through range of electrical, wireless and optical networking technologies. The Internet has reshaped, redefined or even bypassed most regular conversation media such ad telephone, radio, television, paper mail, and newspapers, resulting in new services such as email, smartphone, smart TV, online music, digital newspaper and video streaming websites. Newspapers, books and other forms of print media are adapting to website technological know-how or converted into blogging, network feeds and online new aggregators. Internet is used for communications which in general, Internet users hold the Internet in high regard as a communication tool; 85% of men and women agree that the Internet is a good means to engage or communicate with others in their daily lives. However, that's where the parallel end. Men and women engage in other way online, in terms of how they communicate, what they communicate about and how essential their online communications are to them. Besides, all Internet customers maintain their net in excessive regard as a source of fact. Internet is the right supply of information for day-today pursuits like news, weather reports and sport activities score, in accordance to nearly all Internet customers. The identical variety of people say they assume to discover statistics about unique products they choose to buy, with men (82%) outnumbering women (77% in this category. 1/3 web customers say they expect to find sincere information about people on the Internet.

1.1.2 Mobile Phone

Mobile phone is a compact phone that can settle on and get decisions over a radio recurrence interface while the client is moving inside a telephone utility region. The radio recurrence interface sets up an association with the exchanging frameworks of a mobile phone administrator, which gives admittance to the public exchanged phone

organization (PSTN). Current mobile phone administrations utilize a phone network engineering and in this manner, mobile phones are called cellular telephones or cell phones in North America. Notwithstanding communication, computerized cell phones (2G) support an assortment of different administrations, for example, message informing, MMS, email, Internet access, short-range remote correspondences (infrared, Bluetooth), business applications, computer games and advanced photography. Mobile phones offering just those capacities are known as element telephones; mobile phones which offer extraordinarily progressed figuring abilities are alluded to as mobile phones. Mobile phones were invented as early as the 1940s when engineers working at AT&T developed cells for mobile phone base stations. The first mobile phones were not really mobile phones at all. They were two-way radios that allowed people like taxi drivers and the emergency services to communicate. Mobile phones are important today because they are efficient communication devices and more appearance in our life to make life easier. We can contact our family members or friends in the other places through the mobile phone. We can also use a mobile phone to do other things such as entertainment, doing the job and others. Nowadays, new mobile phone models are constantly engineered to satisfy the needs of consumers and now have multifunctional tools that may be useful in everyday life. So that, the features or configuration in a mobile phone is very important to satisfy the consumers. The accessories of mobile phone also important nowadays. The main purpose of buying cell phone accessories is safety. They also help us take full advantage of our mobile phones. So that, a mobile phone with the best features or configuration and accessories needs to be produced by the factories to the consumers.

1.1.3 Laptop

A laptop company made an agreement with Company A to sell their laptop to Company A. Company A decided to change all their old laptops in the company because all of them have been used for at most 5 years. This is because the laptops started to have slow performance and

were not able to run multiple tabs to complete their everyday task which caused many projects of the company to not finish in time. Hence, the laptop company plan to trade in their old laptops and deduct the cost of their new laptops based on the value of old laptops from Company A. They are facing difficulty in calculating the depreciation of their old laptop and the amount of money they will receive from Company A after knowing the value of the old laptops. The laptop company requested us to create a program to calculate total depreciation of the old laptops and the amount of money they will received. The laptop company also allow Company A to pay in installment for 5 years with an interest of 5% each year.

1.1.4 Satellite

A satellite is an object in space that orbits or circles around a bigger object. There are dozens of natural satellites in the solar system, and even more artificial ones. Saturn, for example, has at least 53 natural satellites, and between 2004 and 2017, it also had an artificial one. Satellites must be small, lightweight, and durable to survive in the harsh conditions of space. They must operate at very high reliability of more than 99.9 percent in the vacuum of space with no prospect of maintenance or repair. In addition, they must be light, as the cost of launching a satellite is based on weight. A communications satellite is an artificial satellite that relays and amplifies radio telecommunication signals via a transponder; it creates a communication channel between a source transmitter and a receiver at different locations on Earth. Communications satellites are used for television, telephone, radio, internet, and military applications. Most communications satellites are in geostationary orbit 22,300 miles (35,900 km) above the equator, so the satellite appears stationary at the same point in the sky.

1.1.5 TV

Astro is a Malaysian satellite television and IPTV provider doing business as All-Asian Satellite Television and Radio Operator. It operates in Malaysia, Brunei through Kristal-Astro and Indonesia through Astro Nusantara. It broadcasts from Kuala Lumpur's All Asia

Broadcast Centre and Cyberjaya's MEASAT. In Malaysia, the corporation was reported to have 71% home penetration in 2016. The Malaysian federal government granted an exclusive licence to Astro as the exclusive pay-television provider till 2017. MEASAT Broadcast Network Systems Sdn. Bhd. operates Astro, which is a wholly-owned subsidiary of Astro Malaysia Holdings Berhad. Astro Malaysia Holdings Bhd is Southeast Asia's leading integrated media group with key operations in pay-TV, radio, content and digital. It is founded on June 1st 1996 by Ananda Krishnan. Astro broadcasts 183 channels including 54 HD channels, delivered via DTH satellite TV via the Measat satellite network, IPTV and OTT platforms. Its operating income decrease RM777.71 million (2014) and net income increase RM447.95 million (2014).

1.2 Identify The Problem

1.2.1 Internet

A slow connection makes it harder for people to upload file or even to surf the Internet. This might happen because they did not notice that they have insufficient amount of Internet usage. Connection velocity is principally decided by using the kind of Internet connection human have. There are numbers of common techniques for connecting to the Internet. For example, Internet connection via Wireless Network (WIFI) which is a wireless networks use frequencies like those used by other devices such as microwave ovens and cordless phones. FiOS (Fiber Optic Service) connects to the Internet via an optical network. FiOS is more likely to be available in densely populated areas. This sort of trouble gets worse especially in a household with quite a lot of family members with the usage of only one Wi-Fi, village, or rural area. Students with online lessons have a hard time to have exact Internet connections. Even people who have proper Internet connections have issues to do work when tons of Internet data drainage happen again.

1.2.2 Mobile Phone

The best features of configuration of a mobile phone need to has the best processor, RAM (Random Access Memory), storage, camera, screen technology and battery. The processor is the central hub of mobile phone

such as Snapdragon 888, Snapdragon 855, Exynos 2100 and Kirin 9000. It receives and executes every command, performing billions of calculations per second. RAM is storage used for a place to hold data and the RAM has different type of storage such as 4, 6 and 8 GB RAM. The storage is like the hard drive in computer to help us to keep our information such as 32 GB, 64 GB, 128 GB, 256 GB and 256 GB storage. The camera can capture photographs and often record video such as 16 MP, 32 MP and 64 MP Camera. The screen technology is enabling the user to interact directly with what is displayed such as AMOLED and IPS. The battery is a small container of chemical energy that support electric to the mobile phone such as 4300 mAh, 5000 mAh and 6400 mAh battery. The accessories like earbuds, screen protector, power bank, charger, and phone case are created to satisfy the consumers. Earbuds such as Jabra Elite 75t Earbuds can help consumers to focus on the listening to the voice message or music when they are using mobile phones. Screen protector like Maxboost Tempered Glass Screen Protector can help consumers to protect their mobile phones' screen safety. Power bank such as iMuto 20,000mah power bank can help consumers to have a moving battery and can use it when their mobile phones are out of battery. So that, a mobile phone accessories and repair shop need to purchase all above things to satisfy consumers when they are visiting to their shop and the consumers can choose the best accessories and configuration by themselves.

1.2.3 Laptop

Depreciation is the process of allocating the expenses of tangible and intangible assets over time and use. To expense their assets, both public and private companies employ depreciation techniques that follow generally recognized accounting rules. Before determining an asset's depreciation, it's necessary to determine the asset's total cost, the length of time it'll be in use, and the asset's residual value, the amount it may be sold or transferred for after its usage period has ended. The residual value is the amount for which management believes the asset can be sold or transferred after it has been decommissioned. For instance, the maximum depreciation that can be expensed during the asset's life is

\$8,800 if it costs \$10,000 and has an estimated residual value of \$1,200.

The asset is never depreciated to the point of being worthless.

1.2.4 Satellite

Satellites are operated by systems based on earth, which are key targets of cybercriminals who look for security loopholes as a potential for hacking into the satellite system. Satellite problems sometimes cause our data to be exposed and used for the benefit of others. This is because it is easy to access by hackers. This will make their data no longer secure and a danger to their safety.

1.2.5 TV

New customers of Astro service are planning to purchase the Astro package but they are having problem to make a decision while choosing package offered. The customer wants to know the information related to Astro and want to seek for further information using the right path to reach for Astro. The customer needs some help from the Astro promoter but during the pandemic, it is a bit risky to go to the Astro centre.

1.3 Alternative Ways

1.3.1 Internet

1. Use data saver to prevent consuming too much Internet data.
2. Disconnect any unactive devices to prevent Internet from stuck or factor in future growth in bandwidth requirements.
3. to get information on your daily data usage to control your data usage efficiently.

1.3.2 Mobile Phone

1. A program that can help shop owner to purchase the accessories and configurations quickly and calculate the instalment is important that can let the shop owner to save their time. The program will total up the price, calculate the shipping fee and give a discount and then will calculate the instalment for customer for 1 year or 12 months or 2 year or 24 months for paying the payment with the interest rate if customer choose to pay with instalment.
2. The shop owner goes to the factories to purchase the accessories and configurations by himself.

1.3.3 Laptop

1. A program created based on declining balanced method.
2. A program created based on straight-line method.
3. A program created based on units of production method.
4. A program created based on sum of years' digits method.

1.3.4 Satellite

Create a new high-security system for communications satellites to not intrude on the privacy of others. The public can use this system to gain security access that can secure their information data. Therefore, they do not have to worry about their data security.

1.3.5 TV

1. A program that can serve the customer.
2. The customer need to go to Astro centre to reach for help.
3. The customer need to find the nearest kiosk that have Astro promoter.
4. A phone call to the Astro hotline.
5. Customer need to search for the information online.

1.4 Best Ways

A multifunctional system is created for communication system which are separated into five systems namely Internet Usage Calculation System, Mobile Accessories System, Laptop Depreciation System, Detecting Risk System, and TV Package System. All of the systems are created based on the solution as stated below :

1.4.1 Internet

A system is created to show users how much data they have been using in their daily lives. By entering the amount of data in megabytes, the user can access information on how much data has been used per minute, hour, and month. The user is also given the option of either getting extra information on how much data has been used for various activities such as uploading or downloading photos, streaming videos, listening to songs, and many more, or skipping the extra information and reviewing the system again with a different amount of data.

1.4.2 Mobile Phone

A program that can help shop owner to purchase the accessories and configurations quickly and calculate the instalment is important that can let the shop owner to save their time. The program will total up the price, calculate the shipping fee and give a discount and then will calculate the instalment for customer for 1 year or 12 months or 2 year or 24 months for paying the payment with the interest rate if customer choose to pay with instalment.

1.4.3 Laptop

A program will be created to record the usage years of the laptop, the depreciation percentage, the purchase price of the old laptops, and the price of the new laptops. The program will arrange all the laptops of the Company A from the oldest to the latest. At the end of the coding, we will be able to know the residual value after minus the depreciation value and the money they will receive each month together with the interest. The coding will be created based on one of the methods in calculating depreciation value which is the declining balance method. Furthermore, the system will also calculate the cashback following the policy from Laptop Company provide to Company A if they are able to fulfill the requirement for cashback.

1.4.4 Satellite

Users use security systems that can help them keep their data safe from being compromised by hackers. Users must be careful in choosing a security system so that they can protect their data. With the existence of this security system, they no longer have to be afraid of their data as it uses a very strict security system.

1.4.5 TV

Online customer service programs can help customers with their problems related to packages offered. A program will provide information related to package offered such as number of channels, price, installation fee, discount and payment details. This program will guide customers to purchase the package and calculate the total payment.

1.5 Evaluate Solution

The system will be a lot convenient for user to choose any of the system to solve their problem. All of the system can be evaluate as stated below :

1.5.1 Internet

Based on the solution given, user need to control their Internet usage to maintain a good Wi-fi connection where they can do lots of activities without needing to be frustrated for having a weak Wi-fi connection. It is also more convinient for user to choose the option given without any problem to check out the data usage.

1.5.2 Mobile Phone

The program is easier use by the consumers and they can know how much they should pay and they know they pay for what and this program is saving their time. They will not worry about the performance of the mobile phone because the configuration and the accessories are the best and chosen by them. Besides that, they will also satisfy to their own choices and make a mobile phone's best features or configurations by themselves.

1.5.3 Laptop

A business recognizes an equal amount of depreciation expenditure for each year an asset is in service under straight line depreciation. The reducing balance technique, also known as the declining balance method, twofold declining balance method, or accelerated method, accelerates depreciation in the early years of an asset's life. This is useful if the company needs a higher immediate tax benefit, but it limits future depreciation tax savings. The asset is depreciated at a higher percentage rate under the declining balance approach than it would be under straight line depreciation.

1.5.4 Satellite

Regarding this solution, users need to follow the procedure to obtain this security system. Aside from that, the problem of information leakage no longer endangers users due to the security measures provided by us.

1.5.5 TV

An online customer service programme makes it more convenient for the customer as they will feel comfortable making decisions because there is no line they need to wait for or an Astro worker waiting for them. They can take as much time as they want to think first before making any purchases and feel less burdened. Also, with online customer service, there will no longer be any hold time, as that is usually what happens in call centres. This programme will respond to the customer immediately. Besides, they can grab the opportunity to reach out to this online customer service at any time they are free to do so to save their time and money. This programme can also help them make price comparisons and make it easier for them to understand the information given to them. Plus, during the pandemic, this online customer service is a great idea for them to avoid the crowds and stay safe from the spread of the COVID-19 virus.

1.6 Calculation Table

1.6.1 Internet

No.	Type of Calculation	Formula	Example
1.	To calculate the data usage per minutes, data usage per hour and data usage per months	Data usage = data / time (Data in Megabytes)	Data usage = $5000 / 45$ $= 111.11$
2.	To calculate total data usage	Total data usage = data usage per minutes + data usage per hour + data usage per months	Total data usage = $111.11 + 416.67 + 833.33$ $= 1361.11$
3.	To calculate average data usage	Average data usage = (data usage per minutes + data usage per hour + data usage per months) / 3	Average data usage = $(111.11 + 416.67 + 833.33) / 3$ $= 453.70$
4.	To calculate data usage to upload and download photo	Data usage = 5MB * photo	Data usage per photo = $5 * 350$ $= 1750$
5.	To calculate data usage for streaming video	Data usage = 750MB * hours of streaming standard definition video Data usage = 2000MB * hours of streaming high-definition video	Data usage = $750 * 4$ $= 3000$ Data usage = $2000 / 6$ $= 12000$
6.	To calculate data usage for streaming music	Data usage = 6.5MB * total every 4 minutes of songs	Data usage = $6.5 * 12$ $= 78$
7.	To calculate data usage for emailing	Data usage = 0.02MB * email	Data usage = $0.02 * 100$ $= 2$

8.	To calculate data usage for web surfing	Data usage = 18MB * hours of web surfing	Data usage = 18 * 6 = 108
9.	To calculate data usage for online gaming	Data usage = 20MB * hours of online gaming	Data usage = 20 * 16 = 320
10.	To calculate data usage for social networking	Data usage = 51MB * hours of social networking	Data usage = 51 * 8 = 408

1.6.2 Mobile Phone

Accessories	Price	Weight	Quantity	Formula Price	Formula Weight	Total Price	Total Weight
Snapdragon 888	RM 2000	0.02 Kg	100	Price of Snapdragon 888 * Quantity $2000 * 100$	Weight of Snapdragon 888 * Quantity $0.02 * 100$	RM 200000	2 Kg
16 GB Ram	RM 500	0.01Kg	200	Price of 16 GB Ram * Quantity $500 * 200$	Weight of 16 GB Ram * Quantity $0.01 * 200$	RM 100000	2 Kg
256 GB Storage	RM 400	0.01Kg	150	Price of 256 GB Storage * Quantity $400 * 150$	Weight of 256 GB Storage * Quantity $0.01 * 150$	RM 60000	1.5 Kg
64 MP Camera	RM 300	0.005Kg	200	Price of 64 MP Camera * Quantity	Weight of 64 MP Camera * Quantity	RM 60000	1 Kg

				$300 * 200$	$0.005 * 200$		
AMOLE D	RM 1000	0.015K g	70	Price of AMOLED * Quantity $10000 * 70$	Weight of AMOLED * Quantity $0.015 * 70$	RM 70000	1.05Kg
Battery 6000 mAh	Rm 300	0.02Kg	250	Price of Battery 6000 mAh * Quantity $300 * 250$	Weight of Battery 6000 mAh * Quantity $0.02 * 250$	RM 75000	5 Kg
Earbuds	RM 100	0.01Kg	200	Price of Earbuds * Quantity $100 * 200$	Weight of Earbuds * Quantity $0.01 * 200$	RM 20000	2 Kg
Screen Protector	RM 50	0.005K g	50	Price of Screen Protector * Quantity $50 * 50$	Weight of Screen Protector * Quantity $0.005 * 50$	RM 2500	0.25 Kg
Power bank	RM 100	0.5Kg	100	Price of Power bank * Quantity $100 * 100$	Weight of Power bank * Quantity $0.5 * 100$	RM 10000	50 Kg

Charger	RM 50	0.002K g	200	Price of Charger * Quantity $50 * 200$	Weight of Charger * Quantity $0.002 * 200$	RM 10000	0.4Kg
Phone Case	RM 10	0.001K g	100	Price of Phone Case * Quantity $10 * 100$	Weight of Phone Case * Quantity $0.001 * 100$	RM 1000	0.1Kg
Total Price of Accessories / Total Weight of Accessories						RM 608500	65.3 Kg
Shipping Fee	RM 5/Kg		Price of Shipping Fee * Total Weight of Accessories $5 * 65.3$		RM 326.50		
Total Price	Total Price of Accessories + Shipping Fee		RM 608826.50				

1.6.3 Laptop

Groups	Details	Formula
Group A	Useful life: x years Depreciation percentage (%): y Initial purchase price (RM): z	Before Depreciation = $z \times 50$ After depreciation (a) = $(100\% - y) \times z \times 50$

	Number of laptops in group A: 50	
Group B	Useful life: x years Depreciation percentage (%): Y Initial purchase price (RM): z Number of laptops in group B: 45	Before Depreciation = $z \times 45$ After depreciation (b) = $(100\% - y) \times z \times 45$
Group C	Useful life: x years Depreciation percentage (%): Y Initial purchase price (RM): z Number of laptops in group C: 40	Before Depreciation = $z \times 40$ After depreciation (c) = $(100\% - y) \times z \times 40$
Group D	Useful life: x years Depreciation percentage (%): Y Initial purchase price (RM): z Number of laptops in group C: 35	Before Depreciation = $z \times 35$ After depreciation (d) = $(100\% - y) \times z \times 35$
Group E	Useful life: x years Depreciation percentage (%): Y Initial purchase price (RM): z Number of laptops in group C: 30	Before Depreciation = $z \times 30$ After depreciation (e) = $(100\% - y) \times z \times 30$
Total salvage value	Group A: a Group B: b Group C: c Group D: d Group E: e	Total salvage value = $a + b + c + d + e$
New Laptop Information	Amount Price	Total price = Amount \times Price

Instalment	<p>Deposit Account receivable Instalment Instalment period (years): w Interest</p>	<p>Deposit = $20\% \times \text{Total price}$</p> <p>$\text{Account receivable} = \text{Total price} - \text{total salvage value} - \text{deposit}$</p> <p>$\text{Instalment} = \text{Account receivable} \div w$</p> <p>$\text{Interest} = 5\% \times \text{Instalment}$</p>
Cashback	<p>$\text{Cashback (\%)} = q$ Cashback (RM)</p>	$\text{Cashback (RM)} = q \times \text{Account Receivable}$

1.6.4 Satellite

For Threat: -

Threat	Amount	Formula	Probability of Occurrence
Hijack your usernames and passwords.	90	$P(A) = \frac{n(A)}{n(S)}$ $= \frac{90}{6}$ $= 15$	15
Steal your money and open credit card and bank accounts in your name.	85	$P(A) = \frac{n(A)}{n(S)}$ $= \frac{85}{6}$ $= 14$	14
Ruin your credit.	60	$P(A) = \frac{n(A)}{n(S)}$ $= \frac{60}{6}$ $= 10$	10
Request new account Personal Identification Numbers (PINs) or additional credit cards.	50	$P(A) = \frac{n(A)}{n(S)}$ $= \frac{50}{6}$ $= 8$	8
Use and abuse your Social Security number.	86	$P(A) = \frac{n(A)}{n(S)}$ $= \frac{86}{6}$ $= 14$	14

Sell your information to other parties who will use it for illicit or illegal purposes.	90	$P(A) = \frac{n(A)}{n(S)}$ = $\frac{90}{6}$ = 15	15
TOTAL	461		76

For Vulnerability: -

Vulnerability	Amount	Formula	Probability of Occurrence
Broken authentication	60	$P(A) = \frac{n(A)}{n(S)}$ = $\frac{60}{4}$ = 15	15
Cross-Site Scripting	77	$P(A) = \frac{n(A)}{n(S)}$ = $\frac{77}{4}$ = 19	19
Cross-Site Request Forgery	70	$P(A) = \frac{n(A)}{n(S)}$ = $\frac{70}{4}$ = 17	17
Security Misconfiguration	89	$P(A) = \frac{n(A)}{n(S)}$ = $\frac{89}{4}$ = 22	22
TOTAL	296		73

The formula is:

$$\text{risk} = (\text{threat} \times \text{vulnerability} \times \text{probability of occurrence})$$

$$\text{risk} = (6 \times 4 \times 149)$$

$$= 3576$$

1.6.5 TV

TYPE OF PACKAGES	PAYMENT METHOD	FORMULA	TOTAL PAYMENT
<p>ASTRO PRIMARY PACK</p> <p>*Price = RM 60.00 *Installation fee = RM 99.00 *24 months subscription contract *Up to 90+ Channels *Astro Go accessible *Support HD Channel *Free Ultra box Decoder Set</p>	<p>1.Deposit & Monthly Payment</p>	<p>-Actual price = package price * 24 + installation bill (Actual price= $60.0 * 24 + 99.0$)</p> <p>-Discount1=$0.10 * \text{package price}$ (Discount1=$0.10 * 60.0$)</p> <p>-Price = package price - discount1 + (package price* 23) + installation bill (Price = $60.0 - 6.0 + (60.0 * 23) + 99.0$)</p> <p>-Deposit = package price - discount1 + installation bill (Deposit = $60.0 - 6.0 + 99.0$)</p> <p>-Balance = 23* package price (Balance = $23 * 60.0$)</p> <p>-Monthly payment= Package price</p>	<p>Actual price = RM1 539.0</p> <p>Discount1 =RM 6.0</p> <p>Price =RM 1 533.0</p> <p>Deposit =RM 153.0</p> <p>Balance =RM 1 380.0</p> <p>Monthly payment =RM 60.0</p>
	<p>2.Fully Payment</p>	<p>-Actual price = package price * 24 + installation bill (Actual price= $60.0 * 24 + 99.0$)</p> <p>-Discount1=$0.10 * \text{package price}$ (Discount1=$0.10 * 60.0$)</p> <p>-Discount2 = $0.15 * \text{price}$ (Discount2= $0.15 * (60.0 - 6.0 + (60.0 * 23) + 99.0)$)</p> <p>-Total price = Actual price – discount1-discount2 (Total Price= $1539.0 - 6.0 - 229.95$)</p>	<p>Actual price = RM1 539.0</p> <p>Discount1 =RM 6.0</p> <p>Discount2 =RM 229.95</p> <p>Total Price</p>

			=RM 1 303.05
<p>ASTRO ENTERTAINMENT PACK</p> <p>*Price = RM 90.00 *Installation fee = RM 99.00 *24 months subscription contract *Up to 105+ Channels *Astro Go accessible *Support HD Channel *Free Ultra box Decoder Set</p>	<p>1.Deposit & Monthly Payment</p>	<p>-Actual price = package price * 24 + installation bill (Actual price= 90.0 *24+ 99.0)</p> <p>-Discount1=0.10 *package price (Discount1=0.10 *90.0)</p> <p>-Price = package price - discount1 + (package price* 23) + installation bill (Price = 90.0 – 9.0 + (90.0* 23) + 99.0)</p> <p>-Deposit = package price - discount1 + installation bill (Deposit = 90.0 – 9.0+ 99.0)</p> <p>-Balance = 23* package price (Balance = 23* 90.0)</p> <p>-Monthly payment= Package price</p>	<p>Actual price = RM 2 259.0</p> <p>Discount1 =RM 9.0</p> <p>Price =RM 2 250.0</p> <p>Deposit =RM 180.0</p> <p>Balance =RM 2 070.0</p> <p>Monthly payment =RM 90.0</p>
	<p>2.Fully Payment</p>	<p>-Actual price = package price * 24 + installation bill (Actual price= 90.0 *24+ 99.0)</p> <p>-Discount1=0.10 *package price (Discount1=0.10 *90.0)</p> <p>-Discount2 = 0.15* price (Discount2= 0.15 *(90.0 – 9.0 + (90.0* 23) + 99.0)</p> <p>-Total price = Actual price – discount1-discount2 (Total Price= 2 259.0 -9.0 -337.5)</p>	<p>Actual price = RM 2 259.0</p> <p>Discount1 =RM 9.0</p> <p>Discount2 =RM 337.5</p> <p>Total Price =RM 1 912.5</p>

<p>ASTRO BROADBAND PACK</p> <p>*Price = RM 140.00 *Installation fee = RM 99.00 *24 months subscription contract *Up to 90+ Channels TV and Radio *Unlimited HighSpeed Internet *Astro Go accessible *Support HD Channel *Free Ultra box Decoder Set, Modem and Router</p>	<p>1.Deposit & Monthly Payment</p>	<p>-Actual price = package price * 24 + installation bill (Actual price= 140.0 *24+ 99.0)</p> <p>-Discount1=0.10 *package price (Discount1=0.10 *140.0)</p> <p>-Price = package price - discount1 + (package price* 23) + installation bill (Price = 140.0 – 14.0 + (140.0* 23) + 99.0)</p> <p>-Deposit = package price - discount1 + installation bill (Deposit = 140.0 – 14.0+ 99.0)</p> <p>-Balance = 23* package price (Balance = 23* 140.0)</p> <p>-Monthly payment= Package price</p>	<p>Actual price = RM 3 459.0</p> <p>Discount1 =RM 14.0</p> <p>Price =RM 3 445.0</p> <p>Deposit</p> <p>Balance =RM 3 220.0</p> <p>Monthly payment =RM 140.0</p>
	<p>2.Fully Payment</p>	<p>-Actual price = package price * 24 + installation bill (Actual price= 140.0 *24+ 99.0)</p> <p>-Discount1=0.10 *package price (Discount1=0.10 *140.0)</p> <p>-Discount2 = 0.15* price (Discount2= 0.15 *(140.0 – 14.0 + (140.0* 23) + 99.0))</p> <p>-Total price = Actual price – discount1-discount2 (Total Price= 3 459 .0 -14.0 -516.75)</p>	<p>Actual price = RM 3 459.0</p> <p>Discount1 =RM 14.0</p> <p>Discount2 =RM 516.75</p> <p>Total Price =RM 2 928.25</p>

<p>ASTRO PLATINUM PACK</p> <p>*Price = RM 195.00 *Installation fee = RM 99.00 *24 months subscription contract *Up to 145+ Channels *Astro Go accessible *Support UHD/4K Channel *Free Ultra box Decoder Set</p>	<p>1.Deposit & Monthly Payment</p>	<p>-Actual price = package price * 24 + installation bill (Actual price= 195.0 *24+ 99.0)</p> <p>-Discount1=0.10 *package price (Discount1=0.10 *195.0)</p> <p>-Price = package price - discount1 + (package price* 23) + installation bill (Price = 195.0 – 19.5 + (195.0* 23) + 99.0)</p> <p>-Deposit = package price - discount1 + installation bill (Deposit = 195.0 – 19.5+ 99.0)</p> <p>-Balance = 23* package price (Balance = 23* 195.0)</p> <p>-Monthly payment= Package price</p>	<p>Actual price = RM 4 779.0</p> <p>Discount1 =RM 19.5</p> <p>Price =RM 4 759.0</p> <p>Deposit =RM 274.5</p> <p>Balance =RM 4 485.0</p> <p>Monthly payment =RM 195.0</p>
	<p>2.Fully Payment</p>	<p>-Actual price = package price * 24 + installation bill (Actual price= 195.0 *24+ 99.0)</p> <p>-Discount1=0.10 *package price (Discount1=0.10 *195.0)</p> <p>-Discount2 = 0.15* price (Discount2= 0.15 *(195.0 – 19.5+ (195.0* 23) + 99.0))</p> <p>-Total price = Actual price – discount1-discount2 (Total Price= 4 779.0 -19.5 -713.925)</p>	<p>Actual price = RM 4 779.0</p> <p>Discount1 =RM 19.5</p> <p>Discount2 =RM 713.925</p> <p>Total Price =RM 4 045.575</p>

1.7 Instructions For The Solution

1. A main menu is created namely Technology System where user will be given options to choose either five of the technology system which are Internet Usage Calculation System, Mobile Accessories System, Laptop Depreciation System, Detecting Risk System and TV package System.
2. For the first part, user is required to enter their informations such as name, IC number and phone number. Then, a menu will showed up with the list of the 5 services given where user can choose any option by entering either number 1-5.
3. If user enter 1 which is Internet Usage Calculation System :
 - a) A method named *mainMenu()* is used to represent a quick instruction which will appear on the main menu where the user can check daily data usage and also get additional information below.
 - b) User need to enter the data in megabytes and fill in the times in minutes, hours, and months.
 - c) Using the formula provided, the programme will calculate the amount, total, and average of data usage that has been entered.
 - d) Control structure selection (if and else statement) is used in which a message is presented and the user is given the option of receiving extra information or not by entering 'Y' which defines yes and 'N' which defines no. If the user enters 'N,' the system will end with the message "Thankyou!". This statement is included in a method called *extraInformation()*.
 - e) If the user enters 'Y,' the system provides various activities in accordance with the arrangement illustrated below:
 - (i) Uploading and dowloading photo
 - (ii) Streaming videos (standard definition and high definition)
 - (iii) Listening to songs
 - (iv) Sending emails

(v) Web surfing

(vi) Online gaming

(vii) Social networking

- f) All of the activities given are separated into different methods.
- g) If and else statement is also used, allowing the user to can choose whether or not gain knowledge about the data usage for the specified activity. If user enters 'Y,' the system will prompt the user to enter the quantity of the item. If the user enters 'N,' the system skips the activity and asks the same question to the next one.
- h) Array is used to show the list of data usage calculated based on the activities above.
- i) The do..while loop is used to determine whether or not the user want to try again . If the user enters 'Y,' the system restarts and the user can enter a different amount of data. If the user enters 'N,' the system will end with the message "Thankyou."

4. If user enter 2 which is Mobile Accessories System :

- a) The consumers key in all the information detail such as name, ic, phone number and address.
- b) The program will come out the configuration and accessories flow by flow for consumers to key in the accessories and configurations they want to purchase from the supplier.
- c) The configurations and accessories have processor, RAM, storage, camera, screen technology, battery, earbuds, screen protector, power bank, charger, and phone case.
- d) The program will get the configuration and accessories that choose by the customers.
- e) The program will calculate the price accessories and configuration base on the choose that customer key in on each configuration and accessories.
- f) The program will calculate the total price for the consumers.

- g) The program will calculate the total price after discount.
 - h) The program will calculate the fees that consumers should pay every month if customer choose to pay with instalment
 - i) The program will print out a receipt for the consumers as the reference.
5. If user enter 3 which is Laptop Depreciation System :
- a) The old laptops in the company will be categorized in groups according to their useful life of assets and the depreciation percentage.
 - b) After arranging all the laptops in Company A, we discover there are five types of laptop so they categorized according to their brand which is Asus, Apple, Acer, HP and Dell.
 - c) In the system, user will input the initial cost of laptop, depreciation percentage, and the usage life of laptop and the amount of laptop.
 - d) The system will calculate the salvage value of the laptop from each group and then total them up.
 - e) The price of the new laptop we sold to Company A is RM 6000 and we sold 200 of the laptops to their company.
 - f) After all the information has been input, the coding will show the instalment policy of Laptop Company. Company A will pay 20% deposit to fulfill the requirement of installment the coding will calculate the money owed by Company A after deducting the salvage value and the deposit in section 1. They are required to input the instalment period as well.
 - g) In section 2, the coding will loop and show the instalment Company A need to pay each year with the interest and also the balance remain after they pay.
 - h) In the cashback section will show the cashback policy and calculate the cashback they will get according to the rules of cashback.

6. If user enter 4 which is Detecting Risk System :
- a) User needs to fill in personal information such as name and age.
 - b) After that, users can create an account and enter new password validation for security. If the user enters the wrong answer, the system will tell the user, they have only two chances to try again. After that, if still wrong, they have to wait five minutes to enter a new password.
 - c) Users have to remember keywords and identify to make sure that is the user. The user has to enter the correct keyword, but if the user enters the wrong keyword system will tell the user only have one chance to enter the correct keyword.
 - d) If someone wants to log in but that was not the user, a warning text will be given. Control structure selection (if and else statement) is used in which is the user has to choose two options which are Yes or No.
 - e) It will reduce the risk of being hacked.
 - f) This system will calculate by using this formula:

The formula is:

$$\text{risk} = (\text{threat} \times \text{vulnerability} \times \text{probability of occurrence})$$

7. If user enter 5 which is TV Package System :
- a) The program will ask user to key in their name and phone number.
 - b) The program will display the options of packages from an array:
 - No 1 Astro primary pack
 - No 2 Astro entertainment pack
 - No 3 Astro broadband pack
 - No 4 Astro platinum pack.
 - c) Ask the user to key in their preference by entering the number of the package selected.
 - d) The program will call certain method for every package based on the key in package number as control selection using if/else statement.
 - e) The program will display the package information, calculate the total payment, and display payment details for a 2 years subscription contract with 2 payment option (deposit and monthly payment or fully payment) based on the number entered by user.

8. After user has choose one of the service, user can try again with other services given. But if user want to end, user can enter number 6 to stop the program.

2.0 PROGRAM DESCRIPTION

2.1 Algorithm

1. Program will display a message to greet customer in the main menu.
2. User is required to enter their informations such as name, IC and phone number.
3. Program will display user's personal information on the output.
4. program will display a message that ask user to choose one of the services given.
5. if user choose Internet Usage Calculation System :
 - a) User enter data in megabytes, time in minutes, hours, and months.
 - b) Calculate data usage per minute = data (megabytes) / minutes

Calculate data usage per hours = data (megabytes) / hours

Calculate data usage per months = data (megabytes) / months

Total data usage = data per minutes + data per hours + data per months

Average data usage = (data per minutes + data per hours + data per months) / 3
 - c) Output will display data usage per minutes, hours and month, total data usage and average data usage.
 - d) Program will display a message for extra informations.
 - e) User enter 'Y' or 'N' to know about first activity. If 'Y', user enter number of photo. If 'N', system will skip the activity and will repeat the same statement until last activity.
 - f) Calculate data usage per photo = 5 x photos

Calculate data usage per hours of standard definition video = 750 x hours

Calculate data usage per hours of high-definition video = $2000 \times \text{hours}$

Calculate data usage per total amount of every 4 minutes of songs = $6.5 \times \text{total 4 minutes}$

Calculate data usage per emails = $0.02 \times \text{emails}$

Calculate hours of web surfing = $18 \times \text{hours}$

Calculate hours of online gaming = $20 \times \text{hours}$

Calculate hours of social networking = $51 \times \text{hours}$

- g) Output will display data usage for downloading and uploading photos, streaming standard, and high-definition video, listening to songs, sending emails, web surfing, online gaming, and social networking.
- h) User enter 'Y' or 'N' either to try again or end the system. If 'Y', program will start again from above. If 'N' program will end.

6. If user choose Mobile Accessories System :

- a) Totalprice = processor + ram + storage + camera + screen technology + battery + earphone + power bank + phone case + screen protector + shippingfee
- b) Discount = totalprice * 0.10
- c) Total price after discount = totalprice - discount
- d) Change = Amount tendered - Total price after discount
- e) Instalment amount if 12 months = Total price after discount * 0.04
- f) Instalment amount if 24 months = Total price after discount * 0.05
- g) Total should pay if instalment is 12 months = Instalment amount if 12 months + Total price after discount
- h) Total should pay if instalment is 24 months = Instalment amount if 24 months + Total price after discount
- i) Total should pay monthly if instalment is 12 months = Total should pay if instalment is 12 months / 12

j) Total should pay monthly if instalment is 24 months = Total should pay
if instalment is 24 months / 24

7. If user choose Laptop Depreciation System :

a) This program calculates the depreciation of old laptop and cash needed to trade in the new laptop.

b) Initialize double salvage_value, double salvage_values, double salvage_valueAsus, double salvage_valueApple, double salvage_valueAcer, double salvage_valueHp, double salvage_valueDell and double totalprice to 0. Initialize String laptops to “ASUS”, “APPLE”, “ACER”, “HP”, “DELL”.

c) Call method to main method

```
Welcome()
Asus(Laptops)
DepreciationAsus(salvage_value)
Apple(laptops)
DepreciationApple(salvage_value)
Acer(laptops)
DepreciationAcer(salvage_value)
Hp(laptops)
DepreciationHp(salvage_value)
Dell(laptops)
DepreciationDell(salvage_value)
Salvage(value)
sv(salvage_valueAsus,salvage_valueApple,salvage_valueAcer,
salvage_valueHp, salvage_valueDell, double salvage_values)
Newlaptop()
newLaptop(totalprice)
Instalrules()
is(totalprice,salvage_values)
CashRules()
cashback(totalprice)
Thankyou()
```

d) Method Welcome(), Asus(laptops), Apple(laptops), Acer(laptops), Hp(laptops), Dell(laptops), Salvage(value), Newlaptop(), Instalrules(), CashRules() used to print user information.

e) Declare variables int amount, double purchase_price, double total_price, double year, double depreciation, double value and input the amount into the variables using scanner in method :

DepreciationAsus(salvage_value)

DepreciationApple(salvage_value)

DepreciationAcer(salvage_value)

DepreciationHp(salvage_value)

DepreciationDell(salvage_value)

- f) For loop will calculate salvage_value of all the depreciation method and return it to the main method.
- g) Method sv will calculate the t_salvage_value and return it to main method.
- h) User input value for variable newlaptop and pricelaptop. Return totalprice.
- i) Declare double deposit, double receivable, int instalperiod, double instalment and input the amount into variables using scanner in method is.
- j) Declare int duration, int cashback, double penalty, and initialize double money to 0.
- k) User input the duration and selection if else will use to determine the value of cashback and penalty.
- l) The method cashBack used to save this method and return value of money.

8. If user choose Detecting Risk System :

- a) User has to insert personal information such as name, age, phone number, email address, and password.

- b) After that, the user inserts the same password same as personal information. Users have only two chances to enter the correct password. If still wrong, they have to wait five minutes to enter a new password.
- c) User enters the validation such as password, and keyword.
- d) User enters the keyword. Users only have one chance to enter the correct keyword.
- e) Warning text. The user has to choose two option which is Yes or No. If click Yes, the system will print out the block and report meanwhile if click No system will print out everything will be at your own risk.
- f) Calculate risk = (threat x vulnerability x probability of occurrence).
- g) Calculate the total each threat probability:

int p1 = p1 = a1 /s

int p2 = p2 = a2 /s

int p3 = p3 = a3 /s

int p4 = p4 = a4 /s

int p5 = p5 = a5 /s

int p6 = p6 = a6 /s

int a1

int a2

int a3

int a4

int a5

int a6

int s = 6

Switch

case 1:

Print: Hijack your usernames and passwords.

P1 = 15

break;

case 2:

Print: Steal your money and open credit card and bank accounts in your name.

P2= 14

break;

case 3:

Print: Ruin your credit.

P3 = 10

break;

case 4:

Print: Request new account Personal Identification Numbers (PINs) or additional credit cards.

P4 = 8

break;

case 5:

Print: Use and abuse your Social Security number.

P5 = 14

break;

case 6:

Print: Sell your information to other parties who will use it for illicit or illegal purposes.

P6 = 15

break;

Total amount

total1 = a1 + a2 + a3 + a4 + a5 + a6;

Total probability

total2 = p1 + p2 + p3 + p4 + p5 + p6;

- h) Calculate the total each vulnerability probability:

int p7 = p7 = a7 /s

int p8 = p8 = a8 /s

int p9 = p9 = a9 /s

int p10 = p10 = a10 /s

int a7

int a8

int a9

int a10

int s = 4

Total amount

total3 = a7 + a8 + a9 + a10;

Total probability

total4 = p7 + p8 + p9 + p10;

- i) Calculate total risk:

risk = (threat x vulnerability x probability of occurrence)

risk = (s * s1 * probability of occurrence);

- 9. If user choose TV Package System :

- a) Programs will display message to greet the customer.
- b) Program will ask customer to key in their personal info such as name and phone number.
- c) Programs will display 4 options of packages from an array to customers.

No 1 Astro primary pack

No 2 Astro entertainment pack

No 3 Astro broadband pack

No 4 Astro platinum pack.

- d) User key in the package number that they interested in.
- e) Program will perform the task by calling several methods based on different number that entered by user.
- f) Program will calculate the formula from certain method based on package choose by user:

Calculate actual price = package price*24 + installation bill

Calculate discount1 = 0.10*package price

Calculate deposit = package price- discount1 + installation bill

Calculate balance = package price*23

Calculate price = (balance) + deposit

Calculate discount2 = 0.15*price

Calculate total price = price- discount2

- g) Program will display 2 types of discounts offered to customer such as 10% first month discount and 15% Wow discount.
- h) Program will display 2 type of payment detail based on the calculation.

2.2 Pseudocode

```
class menu ()  
START  
    method main ():  
        CALL userinfo  
        CALL system  
        DO  
            Output "Menu"  
            Output "1. INTERNET USAGE CALCULATION SYSTEM"  
            Output "2. MOBILE ACCESSORIES SYSTEM"  
            Output "3. LAPTOP DEPRECIATION SYSTEM"  
            Output "4. DETECTING RISK SYSTEM"  
            Output "5. TV PACKAGE SYSTEM"  
            Output "6. Exit"  
            Output "Please select an Option:"  
            Input option  
            Switch (option)  
                case 1:  
                    CALL class Internet ()  
                    break;  
                case 2:  
                    CALL class Mobile ()  
                    break;  
                case 3:  
                    CALL class Laptop ()  
                    break;  
                case 4:  
                    CALL class Satelit ()  
                    break;
```

case 5:

CALL class TV ()

break;

case 6:

CALL ty ()

break;

default:

Output “Please enter the correct number!”

Break;

WHILE (option! = 6)

ENDWHILE

RETURN

method void userinfo ()

Output “Please enter the following information”

Output “Name:”

Input name

Output “IC:”

Input IC

Output “Phone number:”

Input phonenumber

String user [] [] = {“Name: ”, “IC: ”, “Phone number: ” },

{name, IC, phonenumber}

Output “This is your information!!!”

Output user [0][0] + user [1][0]

Output user [0][1] + user [1][1]

Output user [0][2] + user [1][2]

RETURN

```

method void ty ()
    Output "Thank you! See you next time!"

RETURN

method void system ()
    Output "Welcome to Technology System"
    Output "This is our menu, please choose the services you want!"

RETURN

END

class Internet ()

Start

method main ():

    CALL system ()

    Input cont

    While (cont == 'Y')

        Do

            CALL mainMenu ()

            CALL extraInformation ()

            zp+ =photo (z1)

            zv+ =video (z2)

            zh+ =hdv (z3)

            zs+ =song (z4)

            ze+ =email (z5)

            zw+ =web (z6)

            zo+ =onlinegaming (z7)

            zsc+ =social (z8)

            CALL total(zp,zv,zh,zs,ze,zw,zo,zsc)

            Output "Try again? [Y/N]"

            Input cont

            if (cont == 'N')

```

```
        Output “Thank you!”  
    End while  
    RETURN  
  
method void system():  
    Output “WELCOME TO INTERNET USAGE  
    CALCULATION SYSTEM”  
    RETURN  
method void mainMenu():  
    Output “*****”  
    Output “*Main Menu*”  
    Output “*****”  
    Output “Check out your daily data usage here!”  
    Output “Enter data in megabytes :”  
    Output “Enter time in minutes :”  
    Input data usage per minutes  
    Output “Enter time in hours :”  
    Input data usage per hours  
    Output “Enter time in months :”  
    Input data usage per months  
    Input total data usage  
    Input average data usage  
    CALL photo  
    CALL video  
    CALL hdv  
    CALL song  
    CALL email  
    CALL websurfing
```

```
CALL onlinegaming  
CALL socialnetworking  
RETURN  
  
method void extraInformation():  
  
    Output “*****  
  
    Output “Here are some extra information!”  
  
    Output “You can check how much data has been used for  
various kind of Activities”  
  
    Output “Try to check it out!”  
  
    Output “*****  
  
RETURN  
  
method double photo():  
  
    Output “Do you want to know the amount of data usage for  
uploading and downloading photo? (Y/N)”  
  
    If ( photo == ‘Y’)  
  
        Input i1  
  
        Data usage per photo = 5*i1  
  
        Input data usage for downloading and uploading photos  
  
    Else if (photo == ‘N’)  
  
        Output “Skip”  
  
RETURN  
  
method double video():  
  
    If (video == ‘Y’)  
  
        Input i2,  
  
        Data usage per hour = 750*i2,  
  
        Input data usage for streaming standard definition video  
  
    Else if ( video == ‘N’)  
  
        Output “Skip”
```

RETURN

method double hdv():

If (hdv == ‘Y’)

Input i3

Data usage per hour = $2000 * i3$

Input data usage for streaming high definition video

Else if (hdv == ‘N’)

Output “Skip”

RETURN

method double song():

If (song == ‘Y’)

Input i4

Data usage per total of 4 minutes = $6.5 * i4$

Input data usage for listening to songs

Else if (song == ‘N’)

Output “Skip”

RETURN

method double email():

If (email == ‘Y’)

Input i5

Data usage per email = $0.02 * i5$

Input data usage for sending emails

Else if (email == ‘N’)

Output “Skip”

RETURN

method double web():

If (web == ‘Y’)

Input i6

Data usage per hour = $18 * i6$

Input data usage for web surfing

Else if (email == ‘N’)

```

        Output "Skip"
    RETURN
method double onlinegaming():
    If ( game == 'Y')
        Input i7
        Data usage per hour = 20*i7
        Input data usage for online gaming
    Else if ( game == 'N')
        Output "Skip"
    RETURN
Method double social():
    Else if ( social == 'Y')
        Input i8
        Data usage per hour = 51*i8
        Input data usage for social networking
    Else if ( social == 'N')
        Output "Skip"
    RETURN
method double total():
    Output "Here are the list of data usage for the activities above."
    String[]Array = {"Photo", "Standard definition video", "High
definitionvideo", "Song", "Email", "Web surfing", "Online
gaming", "Social networking"}
    Output "Array[0], zp"
    Output "Array[1], zv"
    Output "Array[2], zh"
    Output "Array[3], zs"
    Output "Array[4], ze"
    Output "Array[5], zw"
    Output "Array[6], zo"
    Output "Array[7], zsc"

```

```
RETURN
End
class Mobile ()
    Start
    method main():
        Output "Enter your name."
        Input name
        Output "Enter your IC."
        Input IC
        Output "Enter your phone number."
        Input phone number
        CALL line
        CALL shop
        CALL line
        CALL processor
        CALL ram
        CALL storage
        CALL camera
        CALL screen
        CALL battery
        CALL earphone
        CALL screenprotector
        CALL powerbank
        CALL phonecase
        CALL shippingfee
        CALL total
        CALL paymentmethod
    END
    method void line()
        FOR (int i = 0; i < 80; i++)
            OUTPUT "_"
    RETURN
```

```
method void shop()
OUTPUT "*****WELCOME DREAM MOBILE
SHOP*****"
method double processor()
    Declare
        Totalprice=0
        String processor[] = {"Snapdragon 888","Snapdragon
                                855",
                                "Exynos 2100","Kirin 9000 "}
        double[] priceprocessor = {2000,800,800,1200}
```

Calculate

```
Totalprice += priceprocessor[]

OUTPUT "We have these processor!"
OUTPUT "1. "+processor[0]+" RM "+ priceprocessor[0]
OUTPUT "2. "+processor[1]+" RM "+ priceprocessor[1]
OUTPUT "3. "+processor[2]+" RM "+ priceprocessor[2]
OUTPUT "4. "+processor[3]+" RM "+ priceprocessor[3]
```

Input processor

If processor =1

```
OUTPUT "'You choose "+ processor[0]+" and the price processor is
RM "+priceprocessor[0]"
```

```
Totalprice += priceprocessor[0]
```

If processor =2

```
OUTPUT "'You choose "+ processor[1]+" and the price processor is
RM "+priceprocessor[1]"
```

```
Totalprice += priceprocessor[1]
```

If processor =3

```
OUTPUT "'You choose "+ processor[2]+" and the price processor is
RM "+priceprocessor[2]"
```

```
Totalprice += priceprocessor[2]
```

If processor =4

```
OUTPUT "'You choose "+ processor[3]+" and the price processor is
RM "+priceprocessor[3]"
```

```
Totalprice += priceprocessor[3]
```

RETURN

```
method double ram()
```

Declare

Totalprice=0

String ram[] = { "4 GB","6 GB","8 GB"}

double[] priceram = {200,400,500 }

Calculate

Totalprice += priceram[]

OUTPUT “We have these ram!”

OUTPUT "1. "+ram[0]+" RM "+ priceram [0]

OUTPUT "2. "+ ram [1]+" RM "+ priceram [1]

OUTPUT "3. "+ ram [2]+" RM "+ priceram [2]

Input ram

If ram =1

Output ““You choose "+ ram[0] +" and the price ram is RM
"+priceram[0]”

Totalprice += priceram [0]

If ram =2

Output ““You choose "+ ram [1] +" and the price ram is RM
"+priceram [1]”

Totalprice += priceram [1]

If ram =3

Output ““You choose "+ ram [2] +" and the price ram is RM
"+priceram [2]”

Totalprice += priceram [2]

RETURN

method double storage()

Declare

Totalprice=0

String storage [] = {"32 GB","64 GB","128 GB","256
GB"}

double[] pricestorage = {300,400,600,800 }

Calculate

Totalprice += pricestorage []

OUTPUT “We have these storage!”

OUTPUT "1. "+ storage [0]+" RM "+ pricestorage [0]

OUTPUT "2. "+ storage [1]+" RM "+ pricestorage [1]

OUTPUT "3. "+ storage [2]+" RM "+ pricestorage [2]

OUTPUT "4. "+ storage [3]+" RM "+ pricestorage [3]

```

Input storage
If storage =1
Output "You choose "+ storage [0] +" and the price storage is RM
"+pricestorage [0]"
Totalprice += pricestorage [0]
If storage =2
Output "You choose "+ storage [1] +" and the price storage is RM "+
pricestorage [1]"
Totalprice += pricestorage [1]
If storage =3
Output "You choose "+ storage [2] +" and the price storage is RM "+
pricestorage [2]"
Totalprice += pricestorage [2]
If storage =4
Output "You choose "+ storage [3] +" and the price storage is RM "+
pricestorage [3]"
Totalprice += pricestorage [3]
RETURN
method double camera()
    Declare
        Totalprice=0
        String camera [] = {"16 MP","32 MP","64 MP"}
        double[] pricecamera = {100,200,300}
    Calculate
        Totalprice += pricecamera []
        OUTPUT "We have these camera!"
        OUTPUT "1. "+ camera [0]+" RM "+ pricecamera [0]
        OUTPUT "2. "+ camera [1]+" RM "+ pricecamera [1]
        OUTPUT "3. "+ camera [2]+" RM "+ pricecamera [2]
    Input camera
    If camera =1
        Output "You choose "+ camera [0] +" and the price camera is RM "+
        pricecamera [0]"
        Totalprice += pricecamera [0]
    If storage =2

```

```

Output ""You choose "+ camera [1] +" and the price camera is RM "+  

pricecamera [1]"  

Totalprice += pricecamera [1]  

If storage =3  

Output ""You choose "+ camera [2] +" and the price camera is RM "+  

pricecamera [2]"  

Totalprice += pricecamera [2]  

RETURN  

method double screen()  

    Declare  

        Totalprice=0  

        String[]screen= {"AMOLED","IPS"};  

        double[]pricescreen= {1000,700};  

    Calculate  

        Totalprice += pricescreen []  

        OUTPUT "We have these camera!"  

        OUTPUT "1. "+ screen [0]+" RM "+ pricescreen [0]  

        OUTPUT "2. "+ screen [1]+" RM "+ pricescreen [1]  

Input screen  

If screen =1  

Output ""You choose "+ screen [0] +" and the price screen is RM "+  

pricescreen [0]"  

Totalprice += pricescreen [0]  

If screen =2  

Output ""You choose "+ screen [1] +" and the price screen is RM "+  

pricescreen [1]"  

Totalprice += pricescreen [1]  

RETURN  

method double battery ()  

    Declare  

        Totalprice=0  

        String[]battery= {"4300 mAh","5000 mAh","6400  

                mAh"};  

        double[]pricebattery= {100,200,300};  

    Calculate  

        Totalprice += pricebattery []  

        OUTPUT "We have these camera!"
```

```

        OUTPUT "1. "+ battery [0]+" RM "+ pricebattery [0]
        OUTPUT "2. "+ battery [1]+" RM "+ pricebattery [1]
        OUTPUT "3. "+ battery [2]+" RM "+ pricebattery [2]

Input battery
If battery =1
Output ““You choose ”+ battery [0] +“ and the price battery is RM ”+
pricebattery [0]”
Totalprice += pricebattery [0]
If battery =2
Output ““You choose ”+ battery [1] +“ and the price battery is RM ”+
pricebattery [1]”
Totalprice += pricebattery [1]
If battery =3
Output ““You choose ”+ battery [2] +“ and the price battery is RM ”+
pricebattery [2]”
Totalprice += pricebattery [2]
RETURN

Public static double earphone()

Declare
    Totalprice=0
    Int priceearphone = 25
    Output “Do you want to purchase earphone for RM 25?
    YES(Y) or No(N)”
```

Input earphone

If earphone = ‘Y’ or ‘y’

Output “Thank you! You add on earphone completely!”

Totalprice += priceearphone

If earphone = ‘N’ or ‘n’

Output “Alright thank you.”

RETURN

Public static double screenprotector ()

Declare

Totalprice=0

Int pricescreenprotector = 10

Output “Do you want to purchase screen protector for RM 10? YES(Y) or No(N)”

Input screenprotector

If screenprotector= ‘Y’ or ‘y’

Output “Thank you! You add on screen protector completely!”

Totalprice += pricecreenprotector

If earphone = ‘N’ or ‘n’

Output “Alright thank you.”

RETURN

Public static double powerbank ()

Declare

Totalprice=0

Int pricepowerbank = 50

Output “Do you want to purchase power bank for RM 50?
YES(Y) or No(N)”

Input powerbank

If powerbank = ‘Y’ or ‘y’

Output “Thank you! You add on power bank completely!”

Totalprice += pricepowerbank

If powerbank = ‘N’ or ‘n’

Output “Alright thank you.”

RETURN

Public static double phonecase ()

Declare

Totalprice=0

Int pricephonecase = 10

Output “Do you want to purchase phone case for RM
10? YES(Y) or No(N)”

Input phonecase

If phonecase = ‘Y’ or ‘y’

Output “Thank you! You add on phone case completely!”

Totalprice += pricephonecase

If phonecase = ‘N’ or ‘n’

```

Output "Alright thank you."
RETURN

Public static double shippingfee ()
    Declare
        Totalprice=0
        Double shippingfee
        double shippingfees[] = {50,60}

        Output "What is the place you live and we can delivery
        to you.South(S) or North(N)"

    Input shippingfee
    If shippingfee = 'S' or 's'
        Output "Thank you! We will delivery to you!"

        Totalprice += shippingfees[0]
    If shippingfee = 'N' or 'n'
        Output "Thank you! We will delivery to you!"

        Totalprice += shippingfees[1]
    RETURN

    Public static double total ()
        Declare
            Double totalprices= Totalprice
        Calculate
            Double discount = totalprices * 0.10
            Double price = totalprices - discount
            Output "The total price is : RM "
            Output "Discount : RM "
            Output "Total price after discount is : RM "

    RETURN

    method double paymentmethod ()
        Declare
            Price = totalprices
            Int month
            String PT
            Double tendered

            Output "Please choose your payment types"
            Output "Please Enter [C] as Cash or [I] as Instalment"

        Input PT

```

If PT = ‘C’ or ‘c’
Output “The total amount you should pay after discount is : RM”
Output “Please enter your amount tendered : RM”
Input tendered
Output “Thank you!!!”
Output “This is your receipt”
CALL line()
 Output “*****RECETPT*****”
 Output “*****DREAM MOBILE SHOP*****”
 Output “*****CONTACT NUMBER: 016-3672588*****”
 Output “Consumer Detail”
 Output “Name”
 Output “IC”
 Output “Phone number”
 Output “Total price”
 Output “Discount”
 Output “Total price after discount”
 Output “Amount tendered”
 Output “Change”
 Output “*****THANK YOU!!! PLEASE COME AGAIN*****”
 If payment = ‘I’ or ‘I’
 Output “Instalment for 12 months’ duration = 4% interest rate”
 Output “Instalment for 24 months’ duration = 5% interest rate”
 Output “Please enter [12] for 12 months’ duration, [24] for 24 months’ duration”
 Input month
 If month =12
 Output “You choose 12 months’ duration.”
 Instalment = price * 0.04
 Instalmentpay = price + instalment

```
Instalmentpaymonth = instalmentpay / 12
Output "Total instalment amount"
Output "Total balance should pay"
Output "Total should pay monthly"
If month =24
Output "You choose 24 months' duration."
Instalment = price * 0.05
Instalmentpay = price + instalment
Instalmentpaymonth = instalmentpay / 24
Output "Total instalment amount"
Output "Total balance should pay"
Output "Total should pay monthly"
Output "Thank you!!!"
Output "This is your receipt"
Output "*****RECEIPT*****"
Output "*****DUDUDU ACCESSORIES SHOP*****"
Output "*****CONTACT NUMBER: 016-3672588*****"
Output "Consumer Detail"
Output "Name"
Output "IC"
Output "Phone number"
Output "Total price"
Output "Discount"
Output "Total price after discount"
Output "Total instalment amount"
Output "Total balance should pay"
Output "Total should pay monthly"
Output "*****THANK YOU!!! PLEASE COME AGAIN*****"
Return
End
```

```

class Laptop ()
Start
method main ()
    String [] laptops = {"ASUS", "APPLE", "ACER", "HP", "DELL"}
    CALL Welcome
    CALL Asus (Laptops)
    salvage_valueAsus += DepreciationAsus(salvage_value)

    CALL Apple (laptops)
    salvage_valueApple += DepreciationApple(salvage_value)
    CALL Acer (laptops)
    salvage_valueAcer += DepreciationAcer(salvage_value)
    CALL Hp (laptops)
    salvage_valueHP += DepreciationHp(salvage_value)
    CALL Dell (laptops)
    salvage_valueDell += DepreciationDell(salvage_value)

    CALL Salvage(value)
    salvage_values = salvage_valueAsus + salvage_valueApple +
    salvage_valueAcer, + salvage_valueHP + salvage_valueDell,
    CALL sv (salvage_valueAsus, salvage_valueApple,
    salvage_valueAcer, salvage_valueHP, salvage_valueDell, double
    salvage_values)

    CALL Newlaptop()
    CALL newLaptop(totalprice)
    CALL Instalrules()
    CALL is(totalprice,salvage_values)
    CALL CashRules()
    CALL cashback(totalprice)
    CALL Thankyou()

RETURN

```

```
method String [ ]Asus (String [ ] laptop )
    Output laptop [0]
RETURN laptop

method String [ ]Apple(String [ ] laptop )
    Output laptop [1]
RETURN laptop

method String [ ]Acer(String [ ] laptop )
    Output laptop [2]
RETURN laptop

method String [ ]Hp (String [ ] laptop )
    Output laptop [3]
RETURN laptop

method String [ ]Dell (String [ ] laptop )
    Output laptop [4]
RETURN laptop

method void Welcome ()
    Output "WELCOME TO THE LAPTOP DEPRECIATION
    SYSTEM!"

RETURN

method void Salvagevalue ()
    Output "TOTAL SALVAGE VALUE"

RETURN

method void Newlaptop ()
    Output "NEW LAPTOP INFORMATION"

RETURN

method void Instalrules ()
    Output "INSTALMENT"
    Output "RULES FOR INSTALMENT"
    Output "1. MAXIMUM LIMIT OF INSTALMENT PERIOD IS
    10 YEARS"
    Output "2. CUSTOMER MAY PAY 5% INTEREST EACH
    YEAR"
```

Output “3. CUSTOMER MAY PAY 20% DEPOSIT FOR INSTALMENT”

Output “4. 1% PENALTY WILL BE CHARGE IF EXCEEDED THE INSTALMENT PERIOD”

RETURN

method void CashRules ()

Output “RULES FOR CASHBACK”

Output “1. CUSTOMER PAY BACK IN 2 YEARS TIME WILL GET 20% CASHBACK”

Output “2. CUSTOMER PAY BACK IN 3 YEARS TIME WILL GET 15% CASHBACK”

Output “3. CUSTOMER PAY BACK IN 4 YEARS TIME WILL GET 10% CASHBACK”

Output “4. CUSTOMER PAY BACK IN 5 YEARS TIME WILL GET 0% CASHBACK”

Output “CALCULATION”

RETURN

method void ThankYou ()

Output “THANK YOU FOR USING THIS SYSTEM!”

RETURN

method double DepreciationAsus (double salvage_value)

Output “Enter the initial purchase price of laptop (RM):”

Input purchase_price

Output “Enter the number of years:”

Input year

Output “Enter depreciation percentage (%)”

Input depreciation

Output “Enter amount of laptop:”

Input amount

value = purchase_price

for (int i = 1; i <= year; i++)

```

        value = (100-depreciation)*value/100

        total_price = purchase_price *amount
        salvage_value = value * amount
        Output total_price, salvage_value
RETURN salvage_value

```

```

method double DepreciationApple (double salvage_value)
    Output “Enter the initial purchase price of laptop (RM):”
    Input purchase_price
    Output “Enter the number of years:”
    Input year
    Output “Enter depreciation percentage (%)”
    Input depreciation
    Output “Enter amount of laptop:”
    Input amount

```

```

value = purchase_price

for (int i = 1; i <= year; i++)
    value = (100-depreciation)*value/100

    total_price = purchase_price *amount
    salvage_value = value * amount
    Output total_price, salvage_value
RETURN salvage_value

```

```

method double DepreciationAcer (double salvage_value)
    Output “Enter the initial purchase price of laptop (RM):”
    Input purchase_price
    Output “Enter the number of years:”
    Input year
    Output “Enter depreciation percentage (%)”
    Input depreciation

```

```

Output "Enter amount of laptop:"
Input amount

Value = purchase_price

for (int i = 1; i <= year; i++)
    value = (100-depreciation)*value/100

total_price = purchase_price *amount
salvage_value = value * amount
Output total_price, salvage_value

RETURN salvage_value

```

```

method double DepreciationHp (double salvage_value)
    Output "Enter the initial purchase price of laptop (RM):"
    Input purchase_price
    Output "Enter the number of years:"
    Input year
    Output "Enter depreciation percentage (%)"
    Input depreciation
    Output "Enter amount of laptop:"
    Input amount

    value = purchase_price

    for (int i = 1; i <= year; i++)
        value = (100-depreciation)*value/100

    total_price = purchase_price *amount
    salvage_value = value * amount
    Output total_price, salvage_value

RETURN salvage_value

```

```

method double DepreciationDell (double salvage_value)
    Output "Enter the initial purchase price of laptop (RM):"
    Input purchase_price
    Output "Enter the number of years:"
    Input year
    Output "Enter depreciation percentage (%)"
    Input depreciation
    Output "Enter amount of laptop:"
    Input amount

    value = purchase_price

    for (int i = 1; i <= year; i++)
        value = (100-depreciation)*value/100

    total_price = purchase_price *amount
    salvage_value = value * amount
    Output total_price, salvage_value

RETURN salvage_value

method double sv (salvage_value0, salvage_value1, salvage_value2,
salvage_value3, salvage_value4, t_salvage_value)

String [] laptops = {"ASUS", "APPLE", "ACER", "HP",
"DELL"}

Output laptop [0] + salvage_value0
Output laptop [1] + salvage_value1
Output laptop [2] + salvage_value2
Output laptop [3] + salvage_value3
Output laptop [4] + salvage_value4
Output "Total"+ t_salvage_value

RETURN t_salvage_value

```

method double newLaptop (double totalprice)

```
Output "THE NUMBER OF NEW LAPTOP SOLD :"
Input newlaptop
Output "THE PRICE OF A NEW LAPTOP :"
Input pricelaptop
totalprice = newlaptop * pricelaptop
Output "TOTAL PRICE OF ALL LAPTOP SOLD :" +
totalprice
Input newlaptop
RETURN totalprice
```

```
method double is (totalprice,salvage_values)
deposit = 0.2 * totalprice
Output deposit
receivable = totalprice - deposit - salvage_values
Output receivable
Input instalperiod
instalment = receivable / instalperiod
balance = receivable

for (int i = 1; i <= instalperiod; i++)
    balance=balance-instalment

Output i +balance
interest = 0.05*instalment

Output "Interest per year:" + interest
```

```
RETURN interest
```

```
method double cashback (totalprice)
Output "ENTER YEARS TAKEN TO PAYBACK:"
Input duration
if (duration ==5)
```

cashback = 0

Output “FOLLOWED THE MINIMUM REQUIREMENT RULES OF CASH BACK AND PAY BACK IN TIME”

Output “NO CASH BACK IS GIVEN”

Output “CASHBACK” + cashback + “%”

else if (duration ==4)

cashback = 5

money = 0.5 *totalprice

Output “FOLLOWED THE 3RD RULES OF CASH BACK AND PAY BACK IN TIME”

Output “CASH BACK IS GIVEN”

Output “CASHBACK” + cashback + “%”

Output “CASH OUT: ” + money

else if (duration ==3)

cashback = 10

money = 0.10 *totalprice

Output “FOLLOWED THE 2ND RULES OF CASH BACK AND PAY BACK IN TIME”

Output “CASH BACK IS GIVEN”

Output “CASHBACK” + cashback + “%”

Output “CASH OUT: ” + money

else if (duration <=2)

cashback = 15

```

money = 0.15 *totalprice

Output "FOLLOWED THE 1ST RULES OF CASH BACK AND
PAY BACK IN TIME"

Output "CASH BACK IS GIVEN"

Output "CASHBACK" + cashback + "%"

Output "CASH OUT: " + money

else

penalty = 0.01 * totalprice

Output "VIOLATED THE 6TH RULE OF INSTALMENT"

Output "1& EXTRA CASH WILL BE CHARGED"

Output "PENALTY" + penalty

End if

RETURN money

End

class Satelit ()

Start

method main ()

    CALL system

    passwords+= PersonalInformation1(password)

    CALL Register (passwords)

    CALL Validation

    CALL WarningText ()

    CALL ThreatVurnebalityRisk ()

RETURN

```

```

method int PersonalInformation1 (password)
    Output "Name:"
    Input name
    Output "Age:"
    Input age
    Output "Phone number:"
    Input phonenum
    Output "Email address:"
    Input email1
    Output "Password:"
    Input password
RETURN password

method int Register (password)
    Output "Enter Email:"
    Input email
    for (int i =2; i >=0; i--)
        Output "Enter your account password"
    Input a
    if (a==password)
        Output "Your password is correct"
    else
        Output "Your password is wrong! You have
        "+i+" chance."
    Endif
    if (i ==0)
        Output "Sorry, you need to wait for 5 minutes to key in
        your password again!"
    Endif
RETURN password

method void Validation ()

```

```

        Output “Username : Wani”

        Input username2

        Output “Password :”

        Input password3

        Output “Keyword :”

        Input keyword1

RETURN

method void WarningText ()

        Output “Phone number:”

        Input name1

        Output “Email address:”

        Input email2

        Output “Warning Text:”

        Output “Warning!, Third-party wants to intrude on your data.
Please be alert. Please click ‘Yes’ to block the action and protect
your data. Stop it now!”

        Input warningtext

        if (warningtext == “YES”)

                Output “Block and report”

else

                Output “Everything will be at your own risk.”

Endif

RETURN

method void system ()

        Output “WELCOME TO DETECTING RISK SYSTEM”

RETURN

method void ThreatVulnerabilityRisk ()

        p1 = 0

```

```
p2 = 0  
p3 = 0  
p4 = 0  
p5 = 0  
p6 = 0  
a1 = 90  
a2 = 85  
a3 = 60  
a4 = 50  
a5 = 86  
a6 = 90  
s = 6  
case_Name [ ] = {"case 1", "case 2", "case 3", "case 4", "case 5",}  
Output "Enter the number of x: "  
Input x
```

```
Switch (x)  
case 1:  
    Output "Hijack your usernames and passwords."  
    Input namePass  
    p1 = a1 /s  
    Output p1  
    Output case_Name[0]  
    Input y  
break;  
case 2:
```

Output “Steal your money and open credit card
and bank accounts in your name :”

Input y

p2 = a2 / s

Output p2

Output case_Name [1]

break;

case 3:

Output “Ruin your credit :”

Input y

p3 = a3 / s

Output p3

Output case_Name [2]

break;

case 4:

Output “Request new account Personal
Identification Numbers (PINs) or additional
credit cards :”

Input y

p4 = a4 / s

Output p4

Output case_Name [3]

break;

case 5:

Output “Use and abuse your Social security
number:”

Input y

p5 = a5 / s

Output p5

Output case_Name [4]

break;

case 6:

Output “Sell your information to other parties
who will use it for illicit or illegal purposes:”

Input y

p6 = a6 / s

Output p6

Output case_Name [5]

break;

RETURN

total1 = a1 + a2 + a3 + a4 + a5 + a6;

Output “Total amount threat = ” +total1

total2 = p1 + p2 + p3 + p4 + p5 + p6;

Output “Total amount probability = ” +total2

Output “Vulnerability”

a7 = 60

a8 = 77

a9 = 70

a10 = 89

s1 = 4

Output “Broken authentication : ”

p7 = a7 / s1

Output p7

Output “Cross -Site Scripting : ”

p8 = a8 / s1

Output p8

Output “Cross -Site Request Forgery : ”

p79= a9 / s1

```

Output p9
Output "Security Misconfiguration : "
p10 = a10 / s1
Output p10
total3 = a7 + a8 + a9 + a10
Output "Total amount = " + total3
total4 = p7 + p8 + p9 + p10
Output "Total probability= " + total4

Output "Risk"
probability_occurrence = total2 + total4
risk = (s* s1 *probability_occurrence)
Output "Risk = "+ s+ "x" +probability_occurrence
Output "Risk = " + risk

End
class Tv ()
Start

method main():
    CALL system
    CALL astromenu
    Output "Enter your package number here: -"
    Do
        Input preference
        if (preference==1)
            CALL primarypack
            CALL info
            CALL primarypackbill
            break;
        else if (preference ==2)
            CALL entertainmentpack

```

```

        CALL info
        CALL entertainmentpackbill
        break;

    else if (preference ==3)
        CALL broadbandpack
        CALL info
        CALL broadbandpackbill
        break;

    else if (preference ==4)
        CALL platinumpack
        CALL info
        CALL platinumpackbill
        break;

    else if (preference!=1|| preference!=2|| preference!=3||
preference!=4)
        Output "You entered the wrong number!"
        Output "Please enter a correct number(1-4)"
        Input preference

    endif

    While (preference!=1|| preference!=2|| preference!=3||
preference!=4)

End while

Output "THANK YOU FOR CHOOSING OUR SERVICE. WE
HOPE THIS CAN HELP YOU MAKE YOUR OWN DECISION."
Output "PLEASE CALL OUR ASTRO CENTRE TO MAKE
FURTHER CONFIRMATION"

RETURN

method void system():

```

Output “WELCOME TO TV PACKAGE SYSTEM”

RETURN

method void astromenu()

String [] Packages = {"Primary Pack", "Entertainment Pack",
"Broadband pack", "Platinum Pack"};

Output “Welcome to Astro customer service!”

Output “Enter your name”

Input String name

Output “Enter your phone number (+60)”

Input int phonenum

Output “Hello my dear customer Mr/Mrs” + name

for (int i =0; i < Packages.length; i++)

 Output Packages [i]

end for

RETURN

method void primarypack()

Output message “ASTRO PRIMARY PACK

*Price = RM 60.00

*Installation fee = RM 99.00

*24 months subscription contract

*Up to 90+ Channels

*Astro Go accessible

*Support HD Channel

*Free Ultrabox Decoder Set”

RETURN

method void entertainmentpack()

Output message “ASTRO ENTERTAINMENT PACK

*Price = RM 90.00

*Installation fee = RM 99.00

*24 months subscription contract

*Up to 105+ Channels

- *Astro Go accessible
- *Support HD Channel
- *Free Ultrabox Decoder Set”

RETURN

method void broadbandpack()

- Output message “ASTRO BROADBAND PACK
- *Price = RM 140.00
- *Installation fee = RM 99.00
- *24 months subscription contract
- *Up to 90+ Channels TV and Radio
- *Unlimited HighSpeed Internet
- *Astro Go accessible
- *Support HD Channel
- *Free Ultrabox Decoder Set, Modem and Router”

RETURN

method void platinumpack()

- Output message “ASTRO PLATINUM PACK
- *Price = RM 195.00
- *Installation fee = RM 99.00
- *24 months subscription contract
- *Up to 145+ Channels
- *Astro Go accessible
- *Support UHD/4K Channel
- *Free Ultrabox Decoder Set”

RETURN

method void info()

- Output “My dearest customers, we have provided some discount for you in conjunction with your first time purchased with Astro such as
-10% FIRST MONTH PURCHASE DISCOUNT for every package
-15% WOW DISCOUNT (for customers who skip deposit and paid fully payment) Here is your payment detail based on your package selected:

For your information, we offer two payment methods along with certain discount”

RETURN

method void primarypackbill()

double packageprice =60.00, actualprice, discount1, discount2, deposit, price, totalprice,balance, installationbill = 99.00

Calculate actualprice = packageprice*24 + installationbill;

Calculate discount1 = 0.10*packageprice

Calculate deposit = packageprice- discount1 + installationbill

Calculate balance = packageprice*23

Calculate price = balance + deposit

Calculate discount2 = 0.15*price

Calculate totalprice = price- discount2;

Output message "METHOD 1: DEPOSIT AND MONTHLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT"

Output packageprice, installationbill, actualprice, discount1, price,deposit,balance

Output message “METHOD 2: FULLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT ”

Output actualprice, discount1, discount2, totalprice

RETURN

method void entertainmentpackbill()

double packageprice =90.00, actualprice, discount1, discount2, deposit, price, totalprice,balance, installationbill = 99.00

Calculate actualprice = packageprice*24 + installationbill;

Calculate discount1 = 0.10*packageprice

Calculate deposit = packageprice- discount1 + installationbill

```
Calculate balance = packageprice*23  
Calculate price = balance + deposit  
Calculate discount2 = 0.15*price  
Calculate totalprice = price- discount2;
```

```
Output message "METHOD 1: DEPOSIT AND MONTHLY  
PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT"  
Output packageprice, installationbill, actualprice, discount1,  
price,deposit,balance  
Output message "METHOD 2: FULLY PAYMENT FOR 2 YEARS  
SUBSCRIPTION CONTRACT "  
Output actualprice, discount1, discount2, totalprice
```

```
RETURN
```

```
method void broadbandpackbill()
```

```
double packageprice = 140.00, actualprice, discount1, discount2,  
deposit, price, totalprice, balance, installationbill = 99.00
```

```
Calculate actualprice = packageprice*24 + installationbill;  
Calculate discount1 = 0.10*packageprice  
Calculate deposit = packageprice- discount1 + installationbill  
Calculate balance = packageprice*23  
Calculate price = balance + deposit  
Calculate discount2 = 0.15*price  
Calculate totalprice = price- discount2;
```

```
Output message "METHOD 1: DEPOSIT AND MONTHLY  
PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT"  
Output packageprice, installationbill, actualprice, discount1,  
price,deposit,balance  
Output message "METHOD 2: FULLY PAYMENT FOR 2 YEARS  
SUBSCRIPTION CONTRACT "  
Output actualprice, discount1, discount2, totalprice
```

RETURN

method void platinumpackbill()

double packageprice =195.00, actualprice, discount1, discount2,
deposit, price, totalprice,balance, installationbill = 99.00

Calculate actualprice = packageprice*24 + installationbill;

Calculate discount1 = 0.10*packageprice

Calculate deposit = packageprice- discount1 + installationbill

Calculate balance = packageprice*23

Calculate price = balance + deposit

Calculate discount2 = 0.15*price

Calculate totalprice = price- discount2;

Output message "METHOD 1: DEPOSIT AND MONTHLY
PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT"

Output packageprice, installationbill, actualprice, discount1,
price,deposit,balance

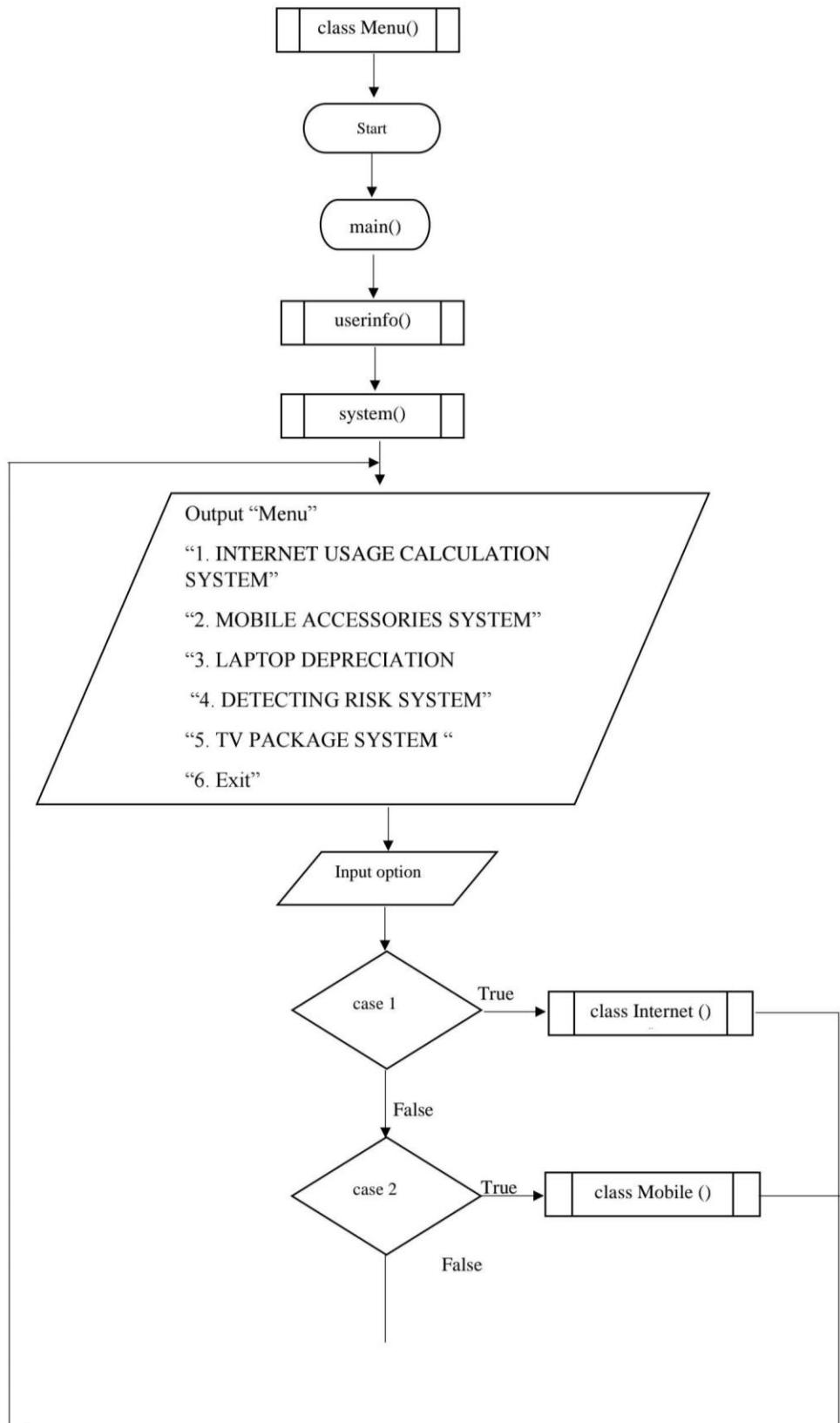
Output message "METHOD 2: FULLY PAYMENT FOR 2 YEARS
SUBSCRIPTION CONTRACT "

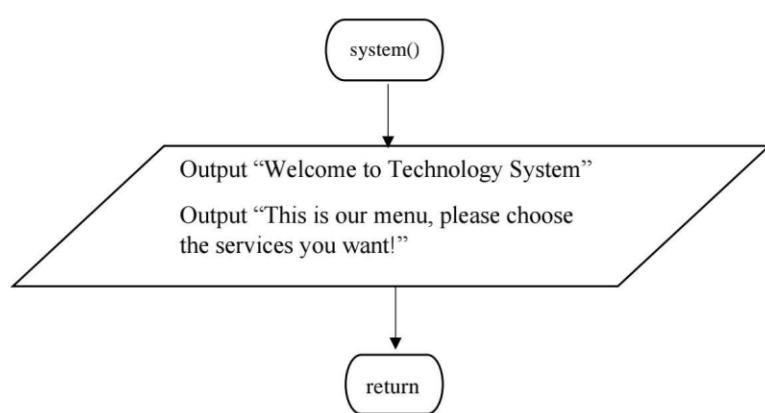
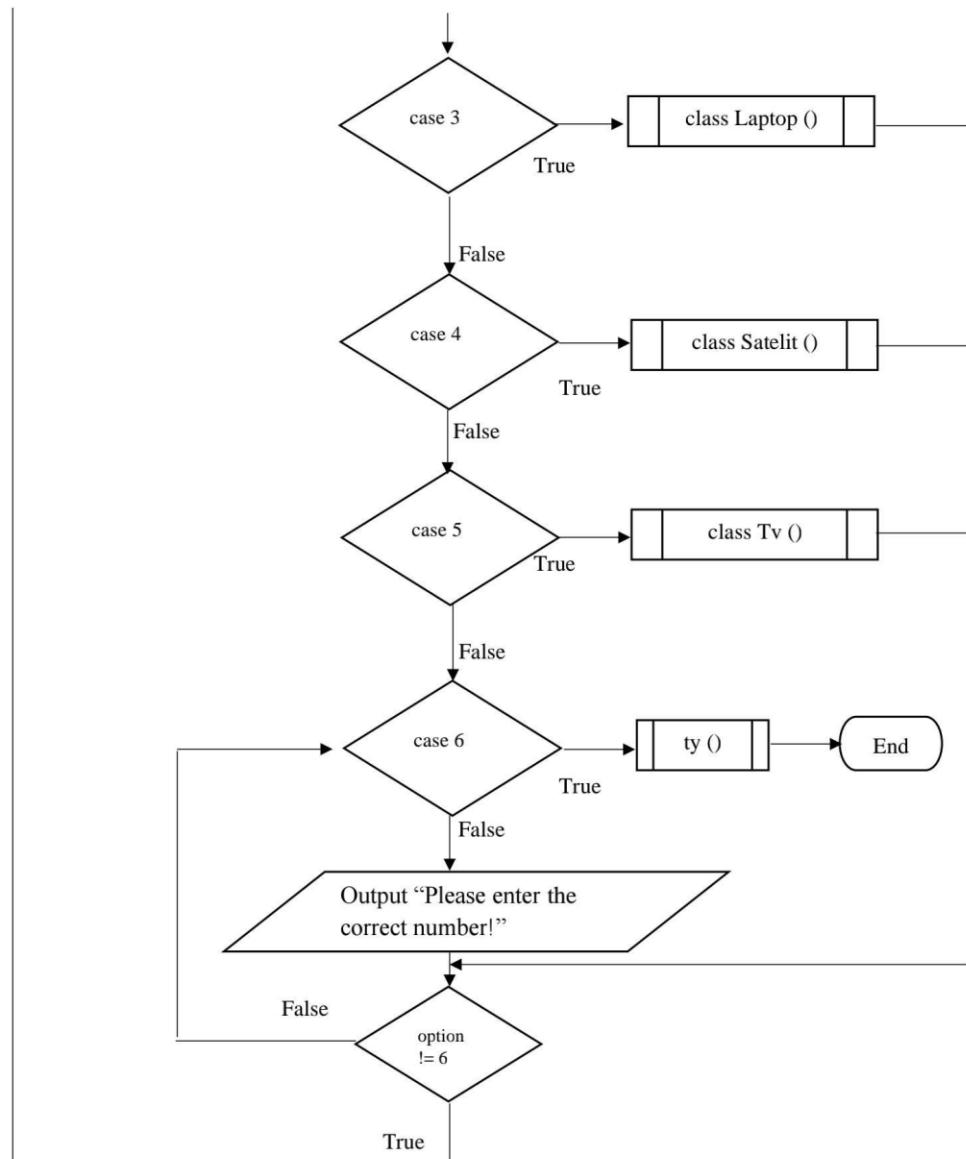
Output actualprice, discount1, discount2, totalprice

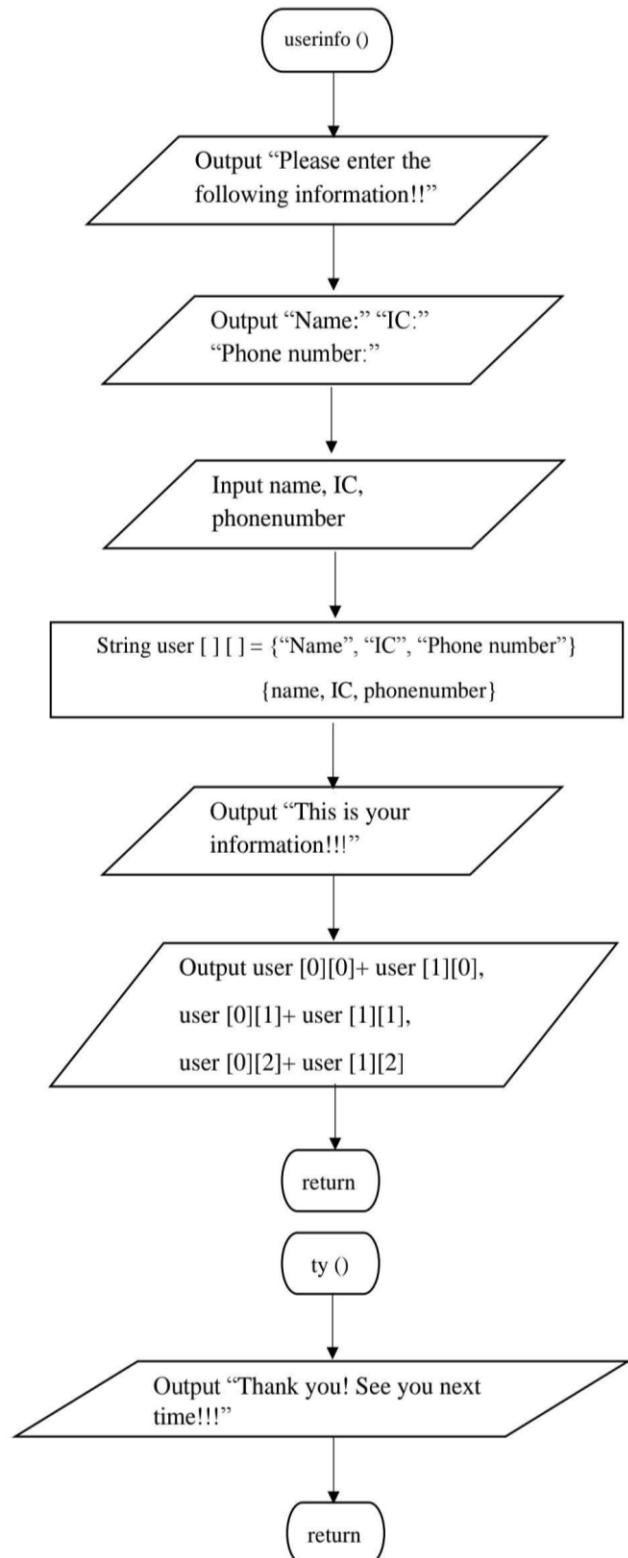
RETURN

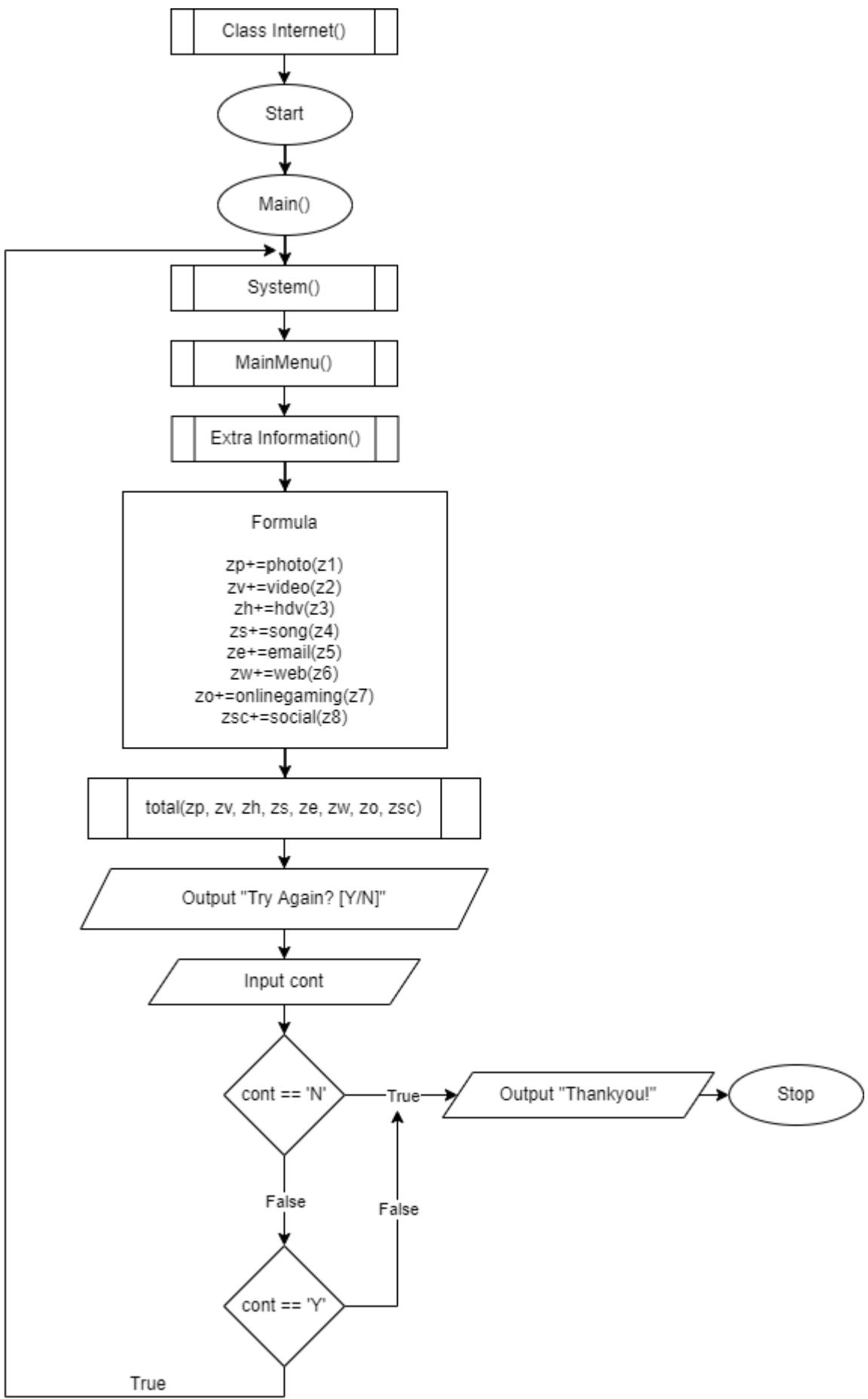
End

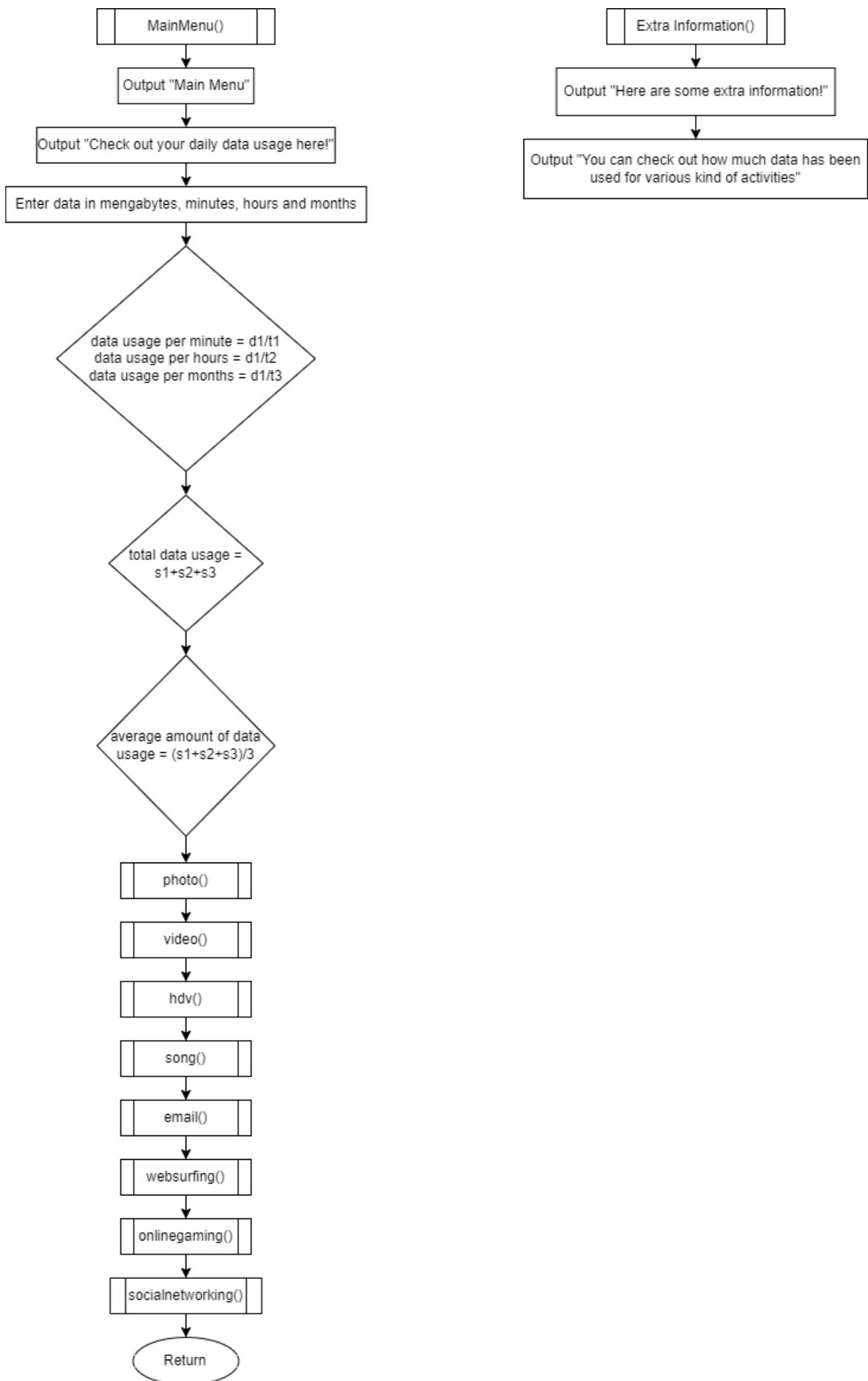
2.3 Flow Chart

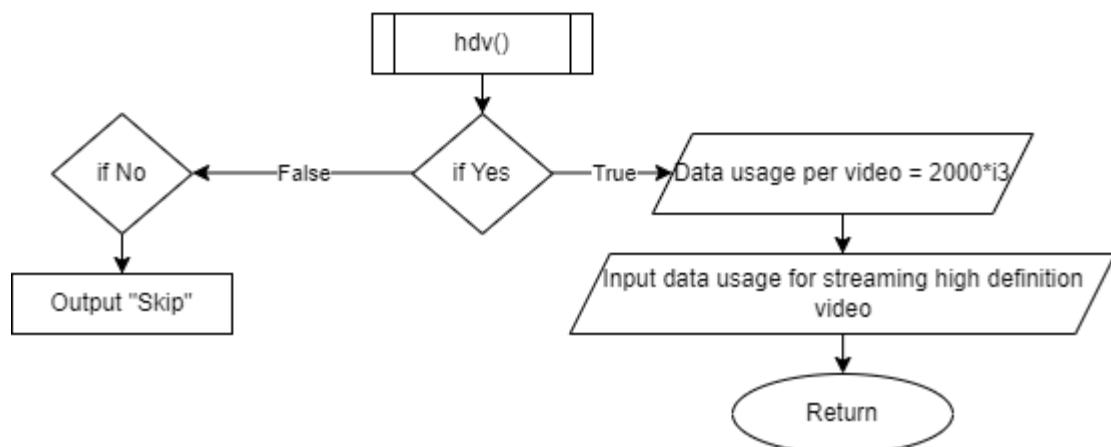
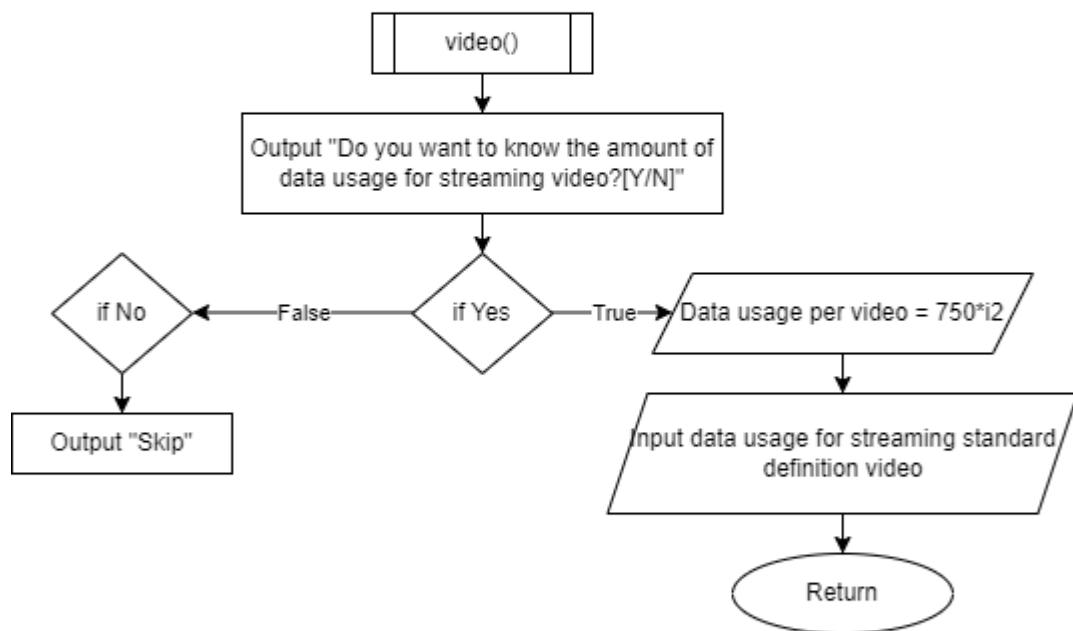
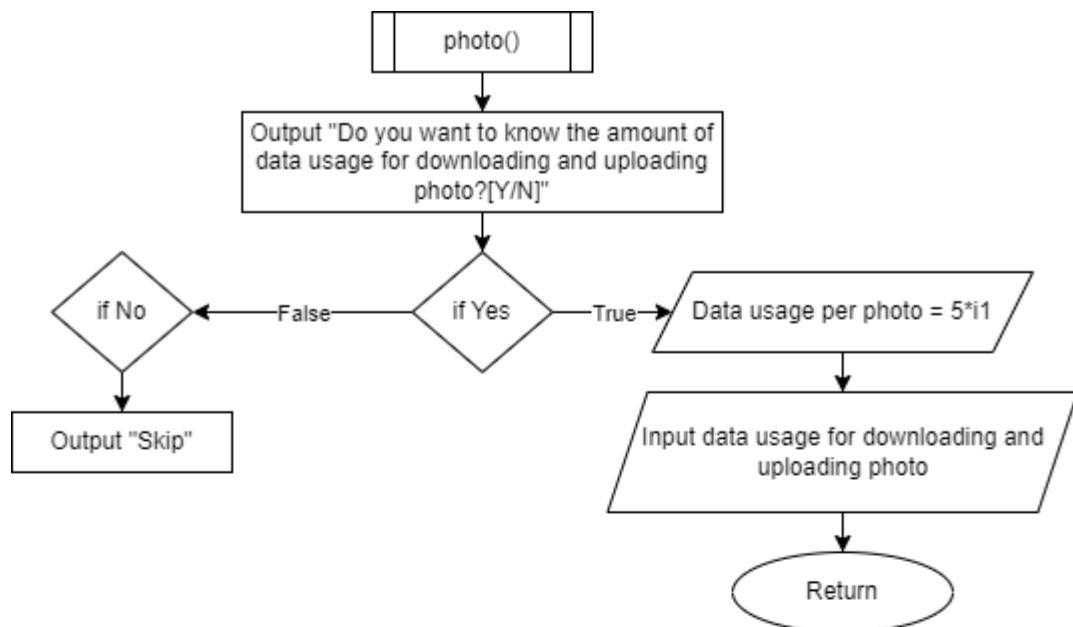


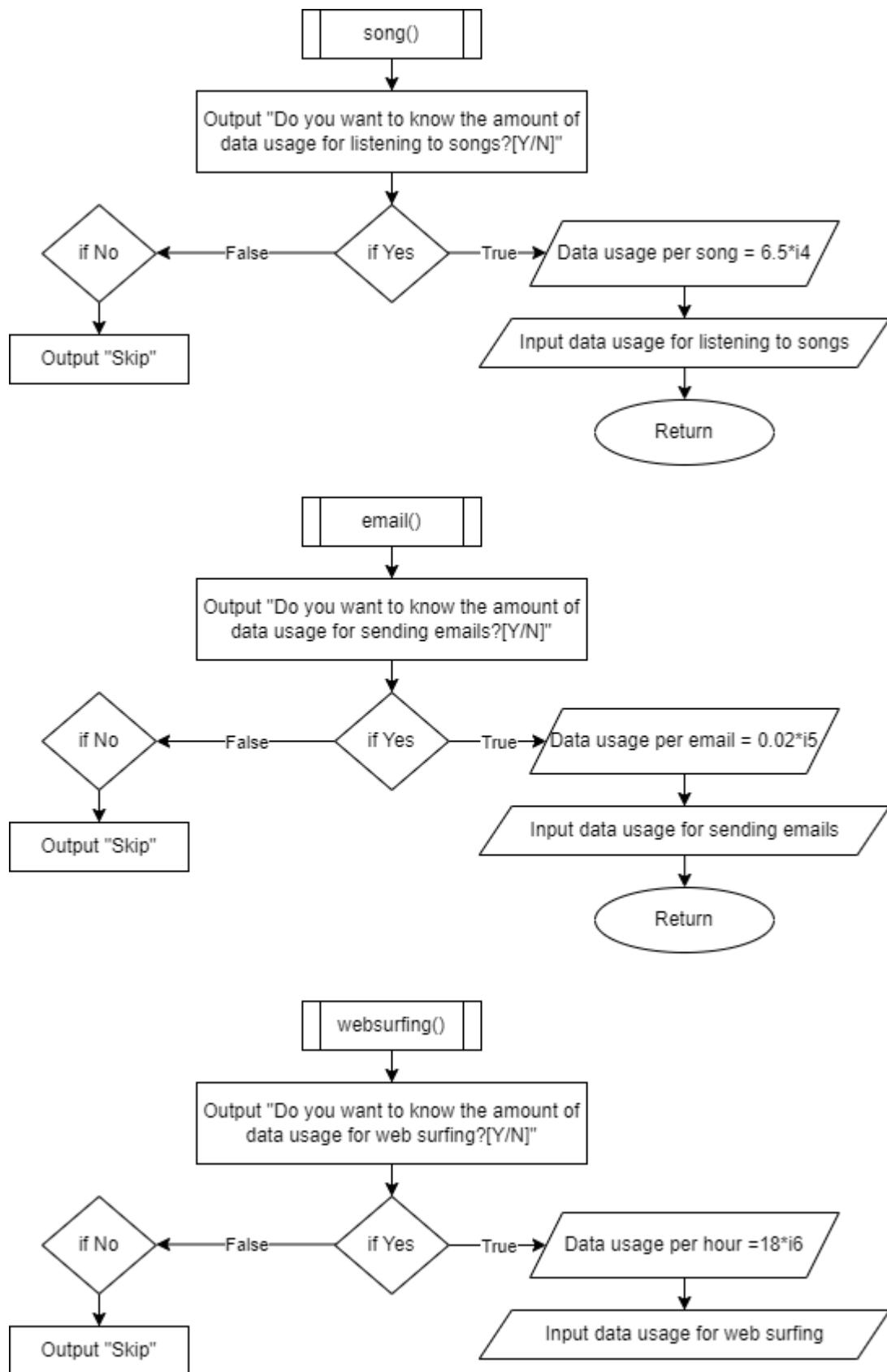


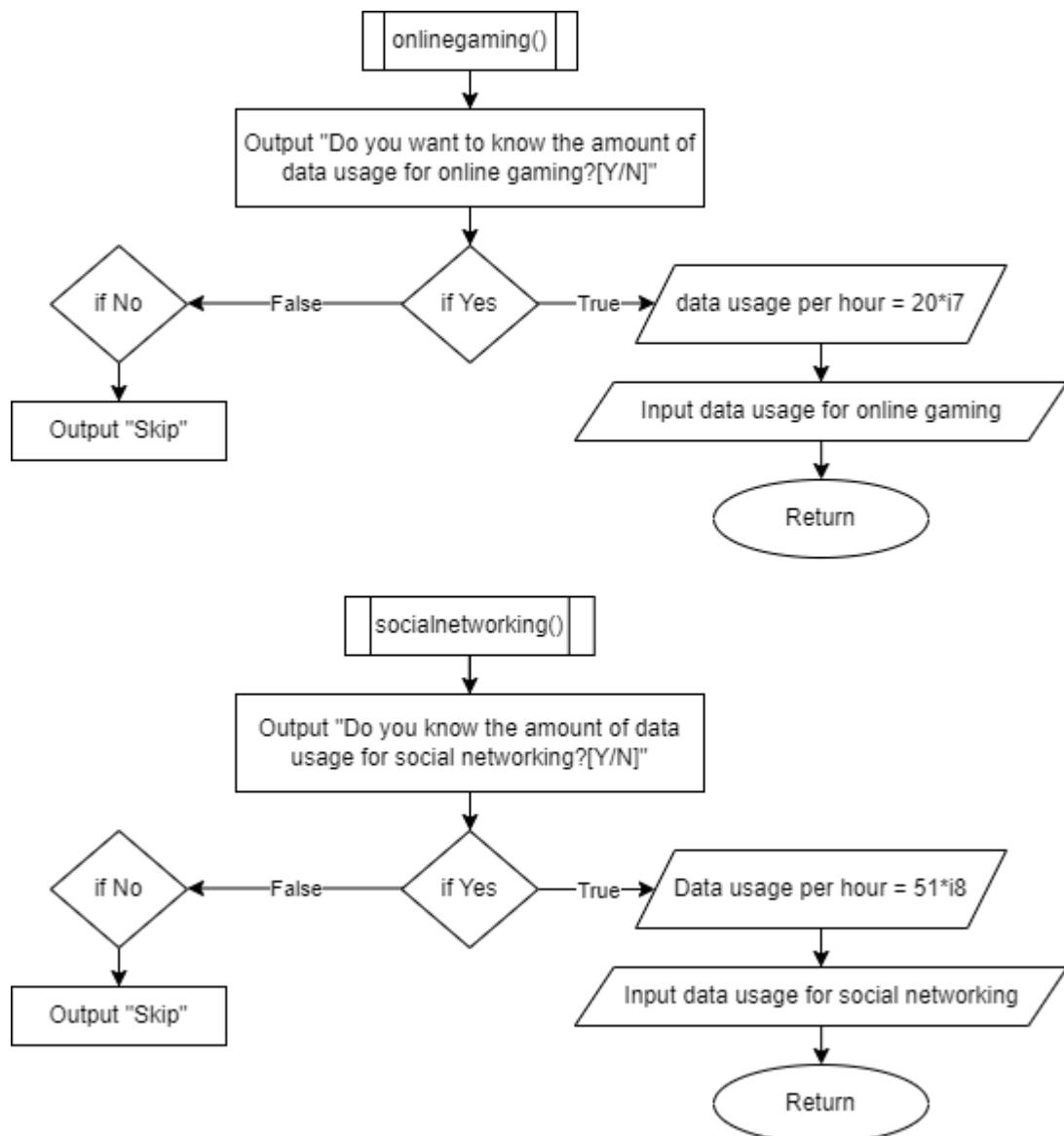


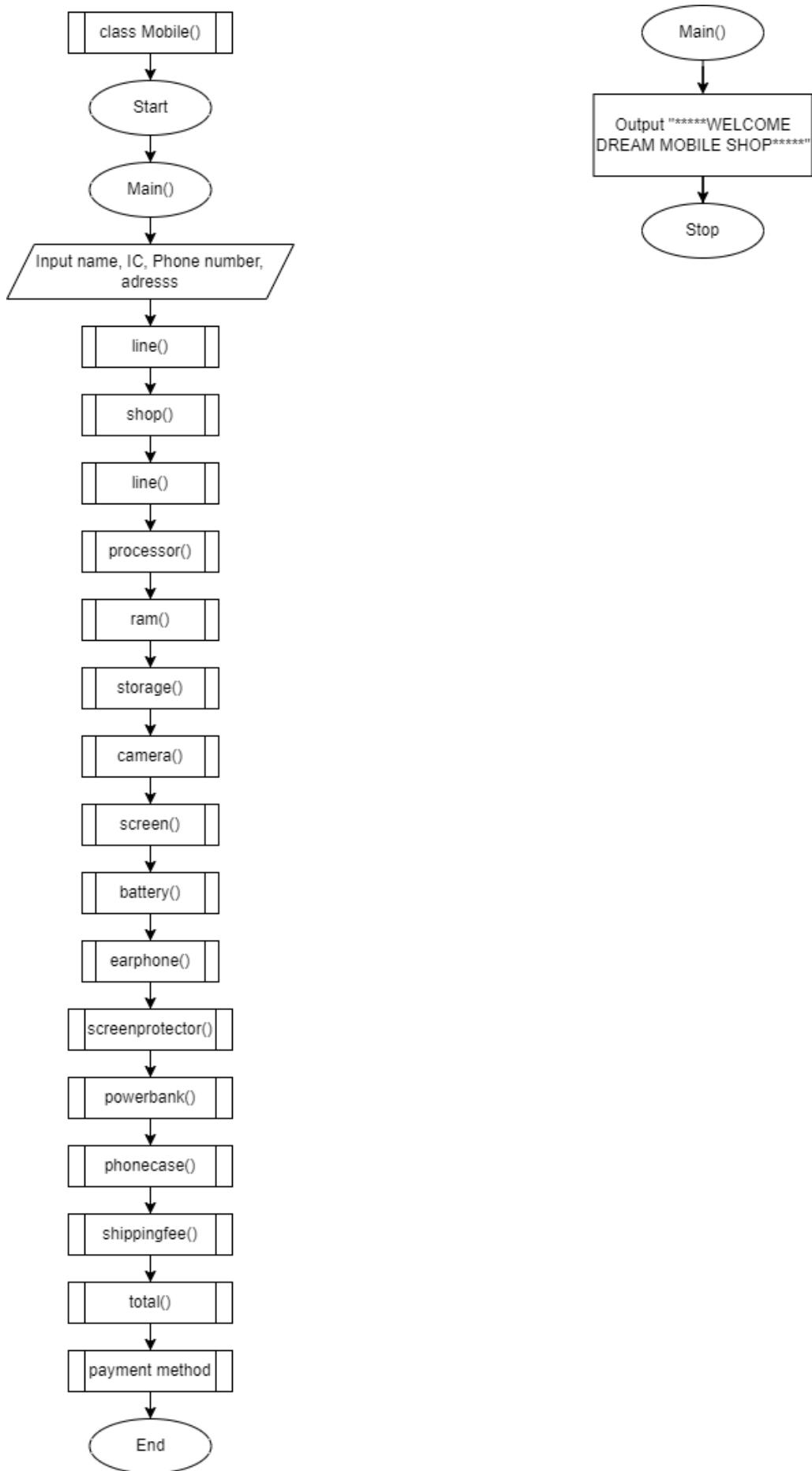


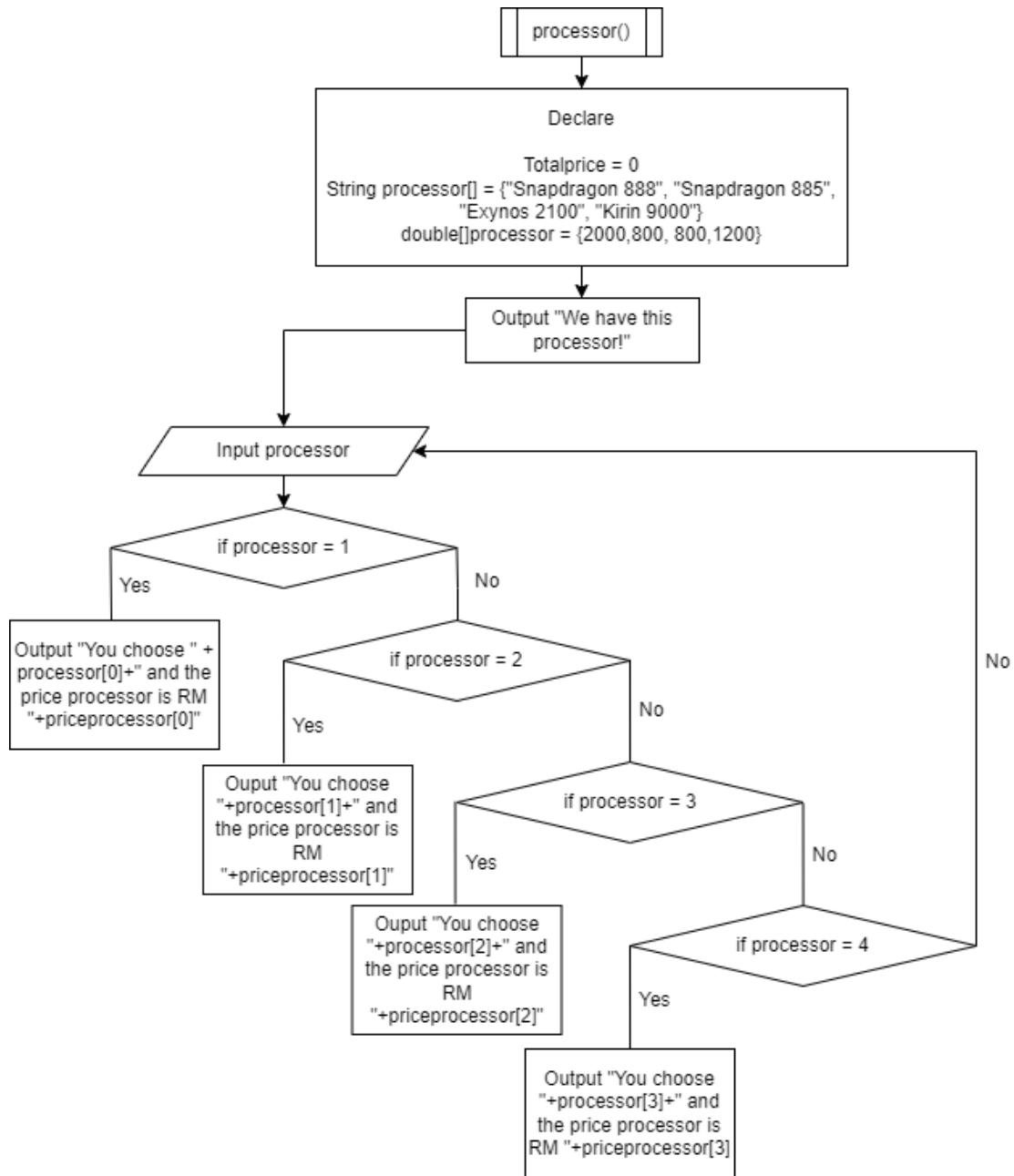


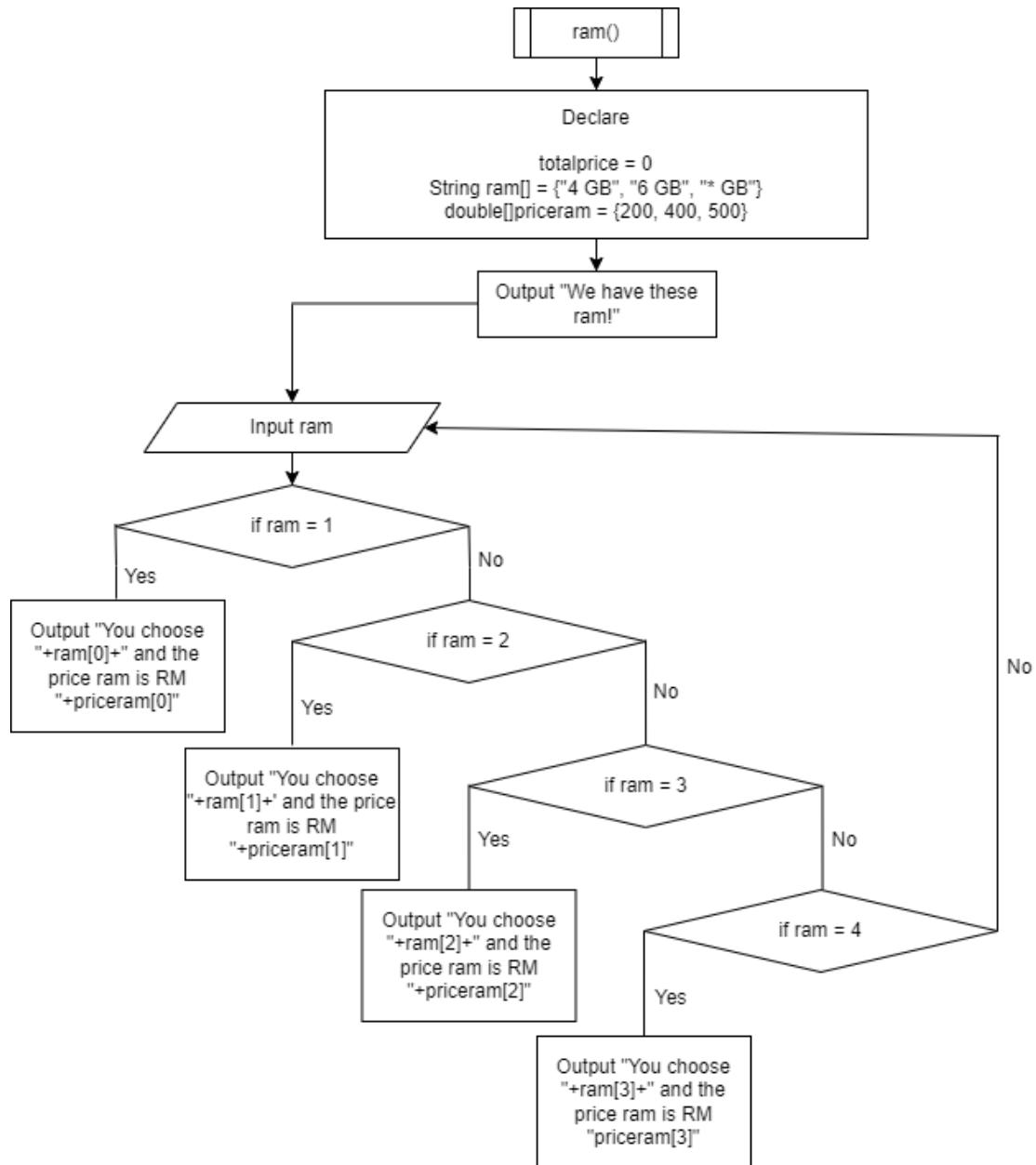


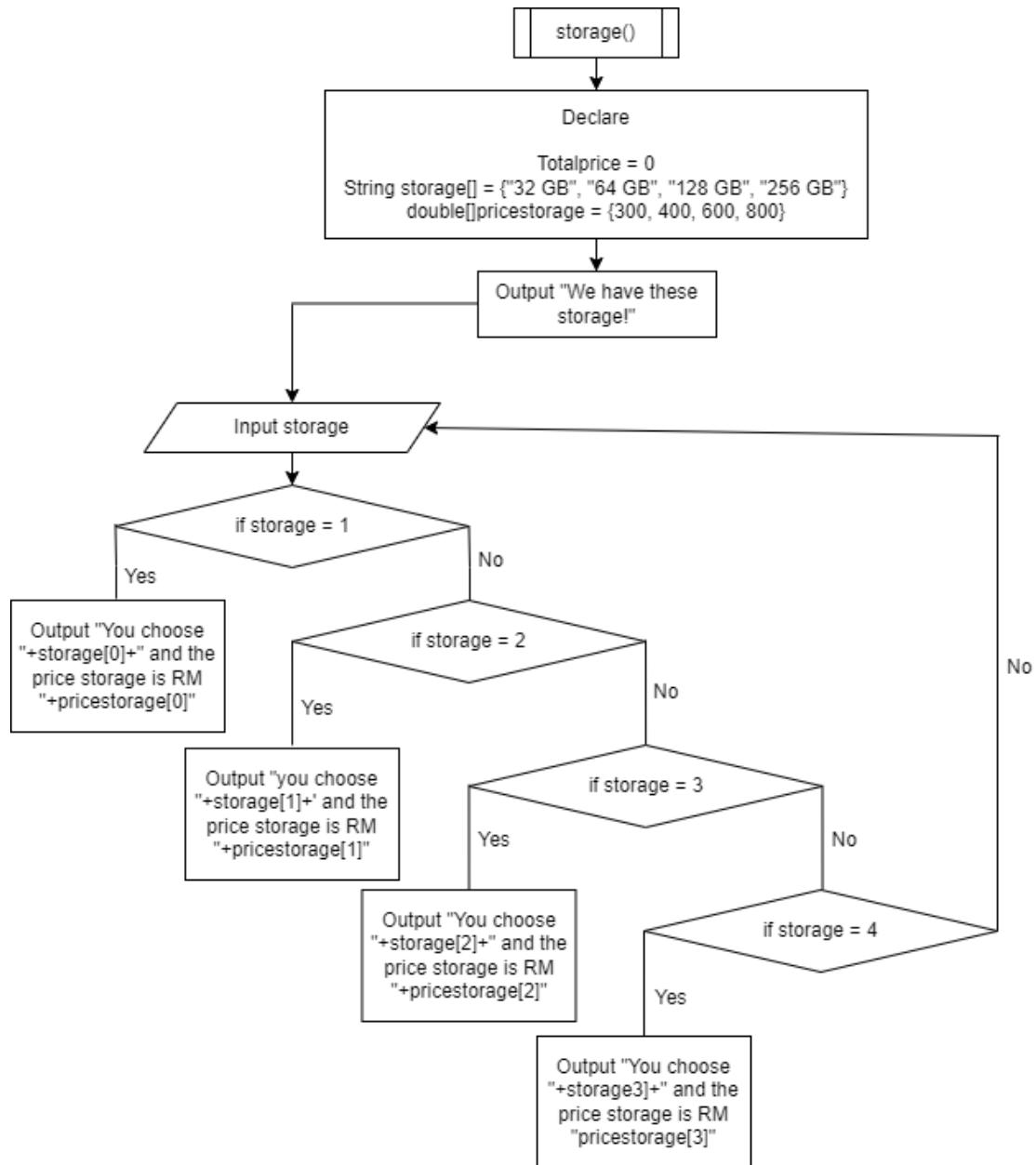


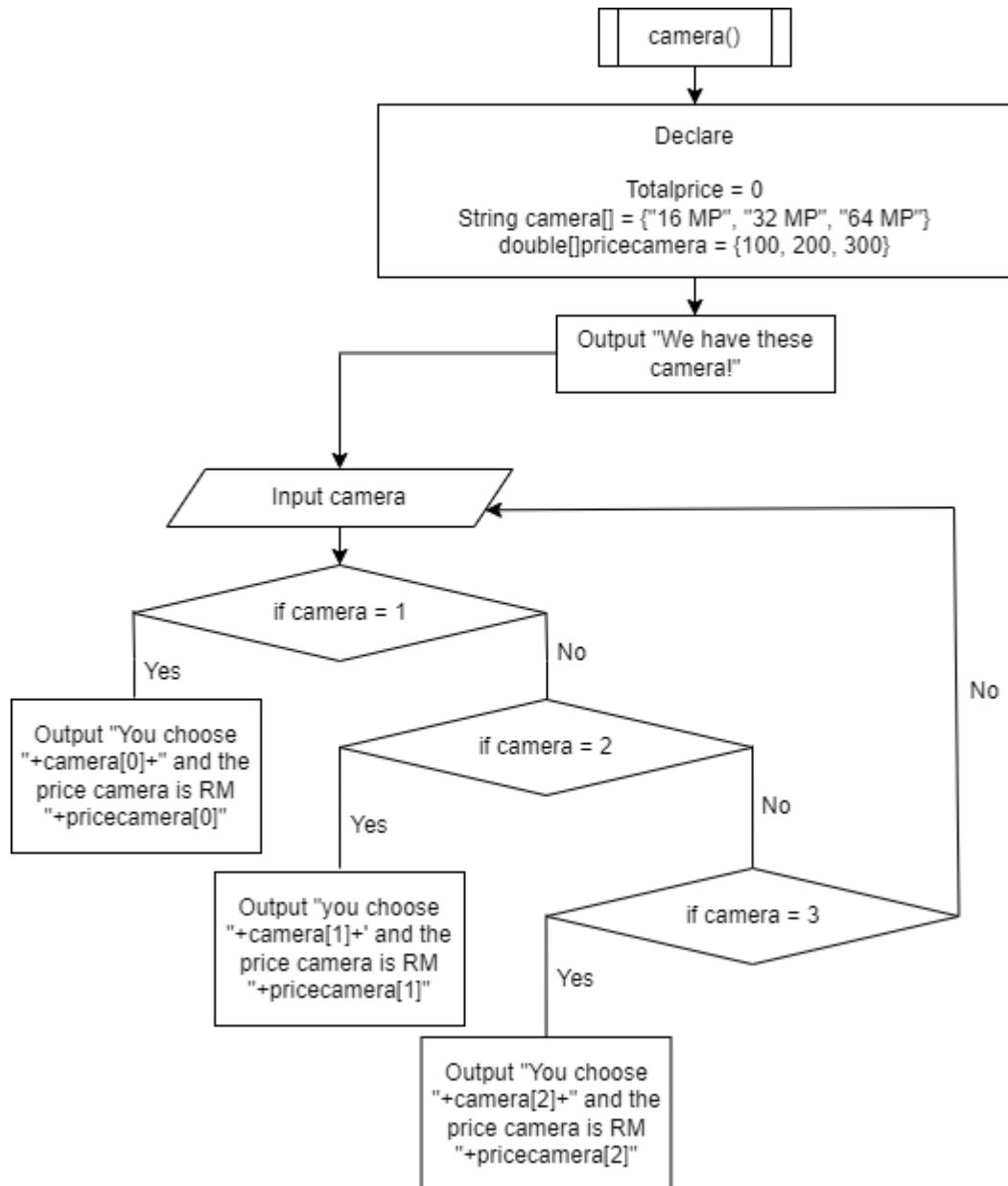


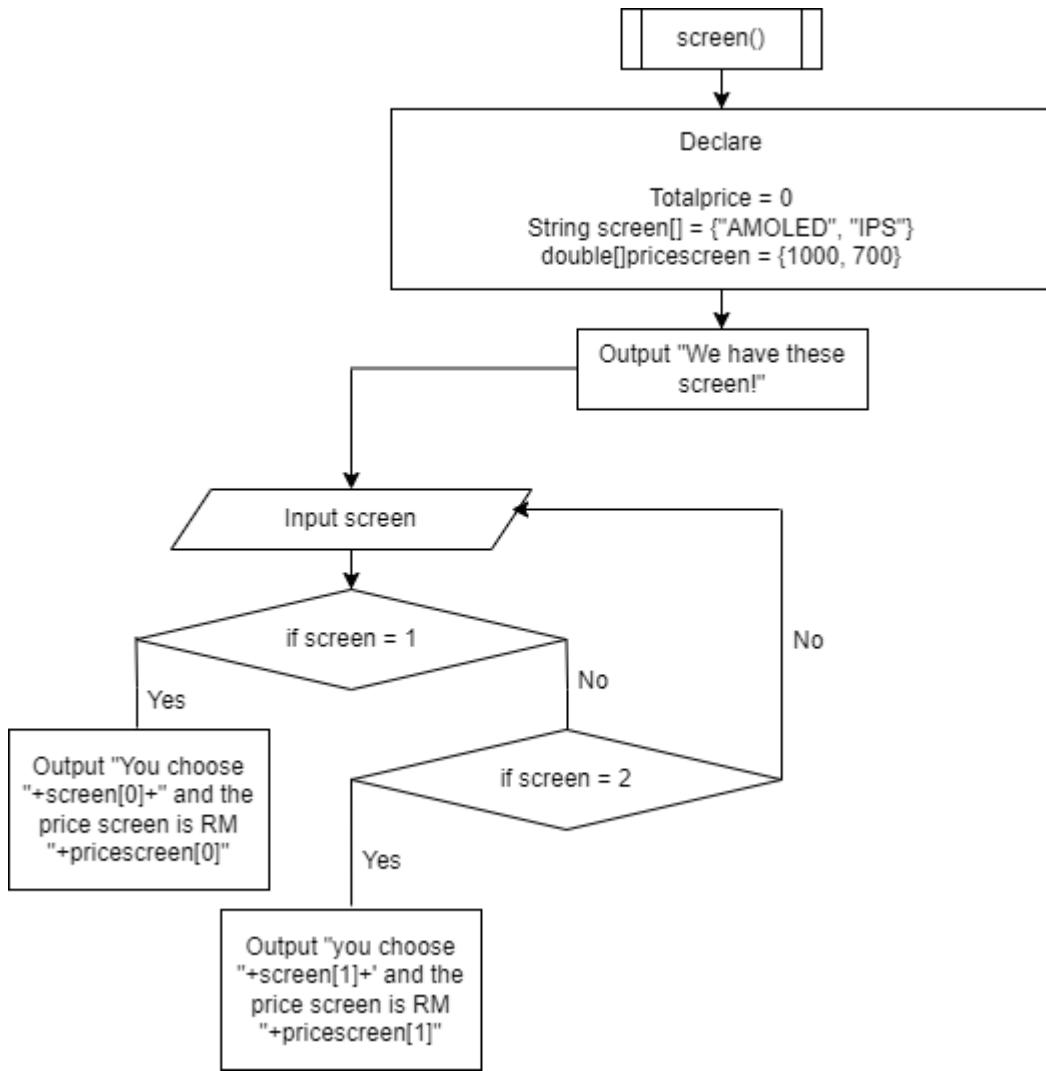


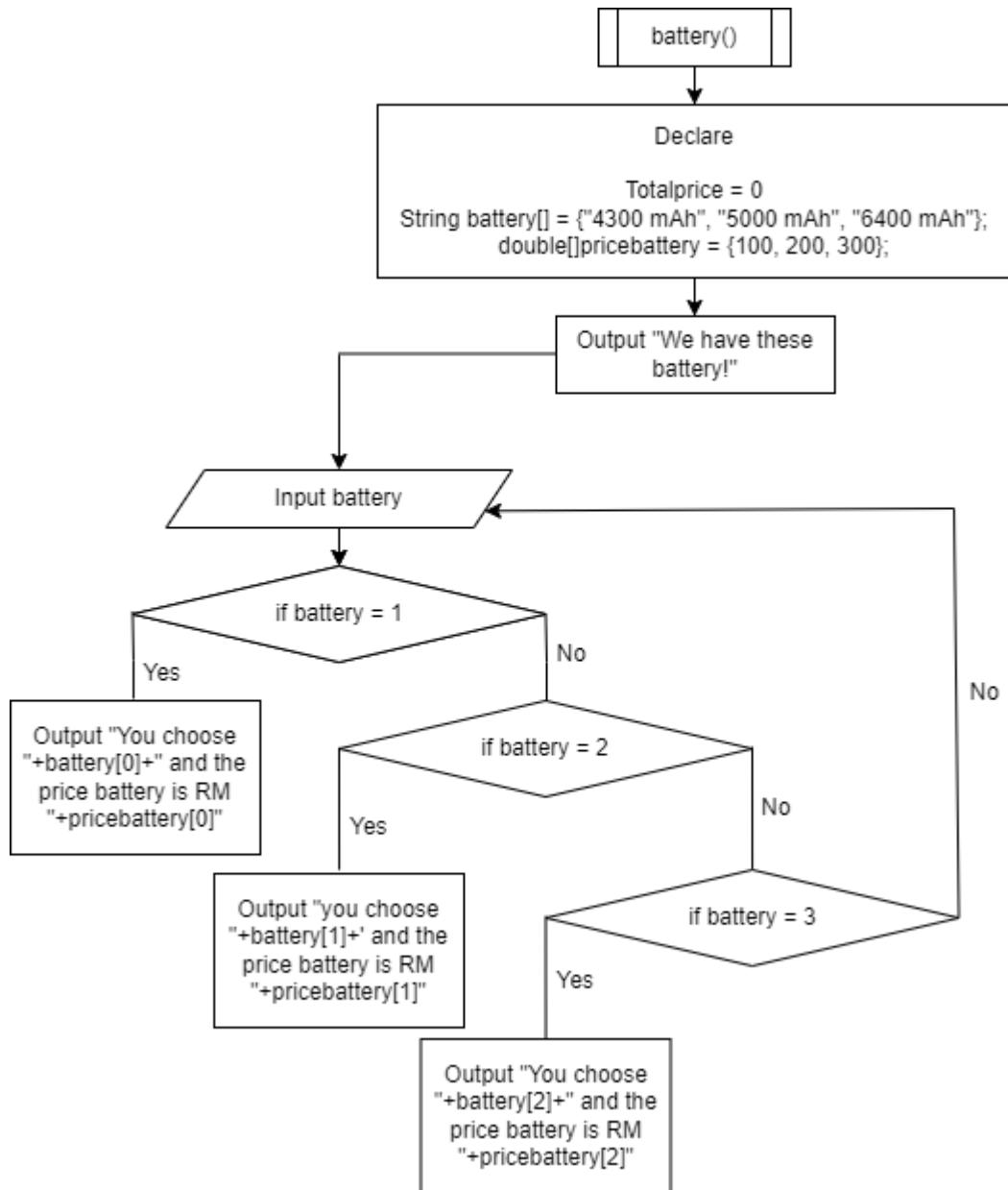


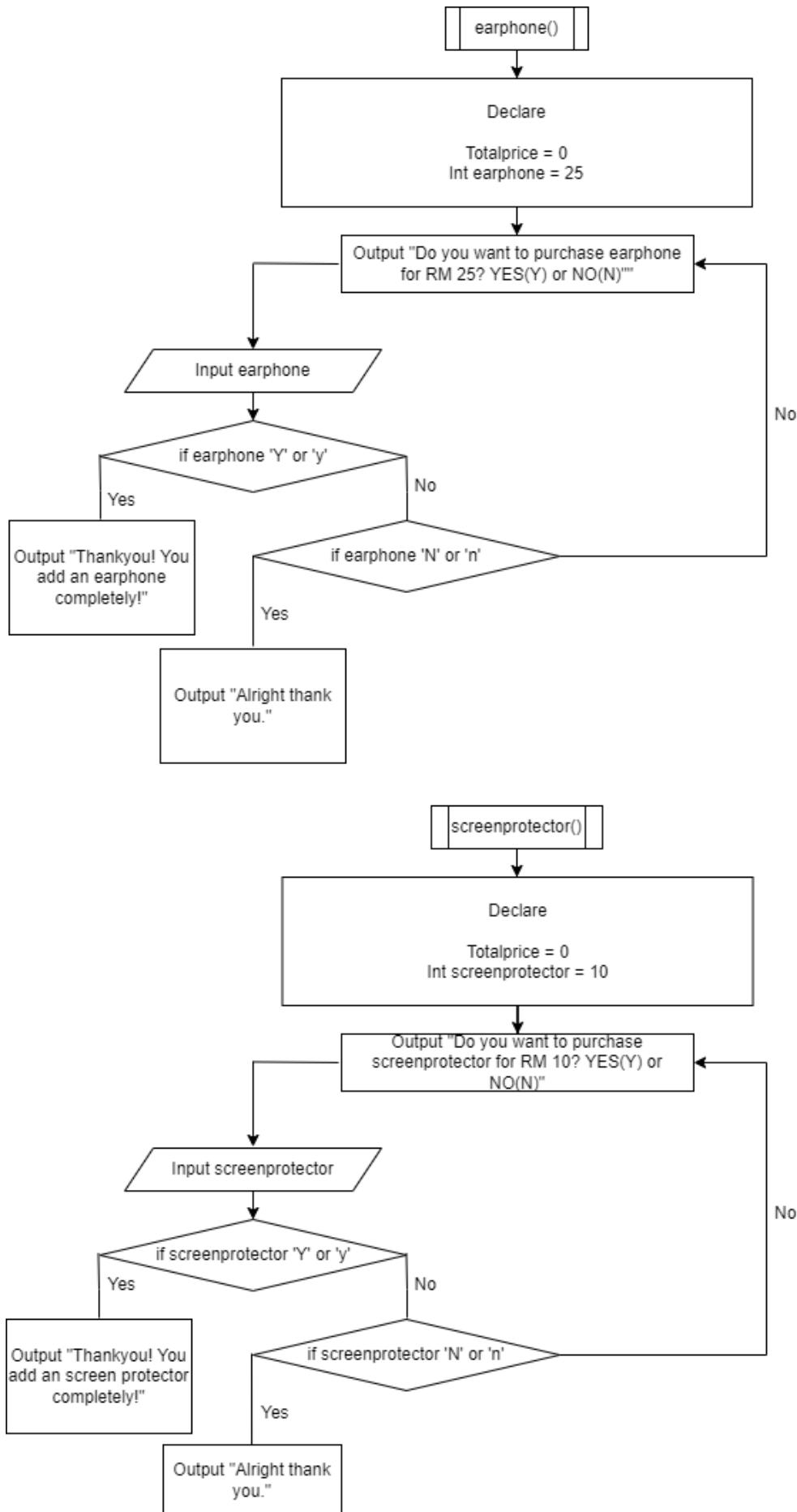


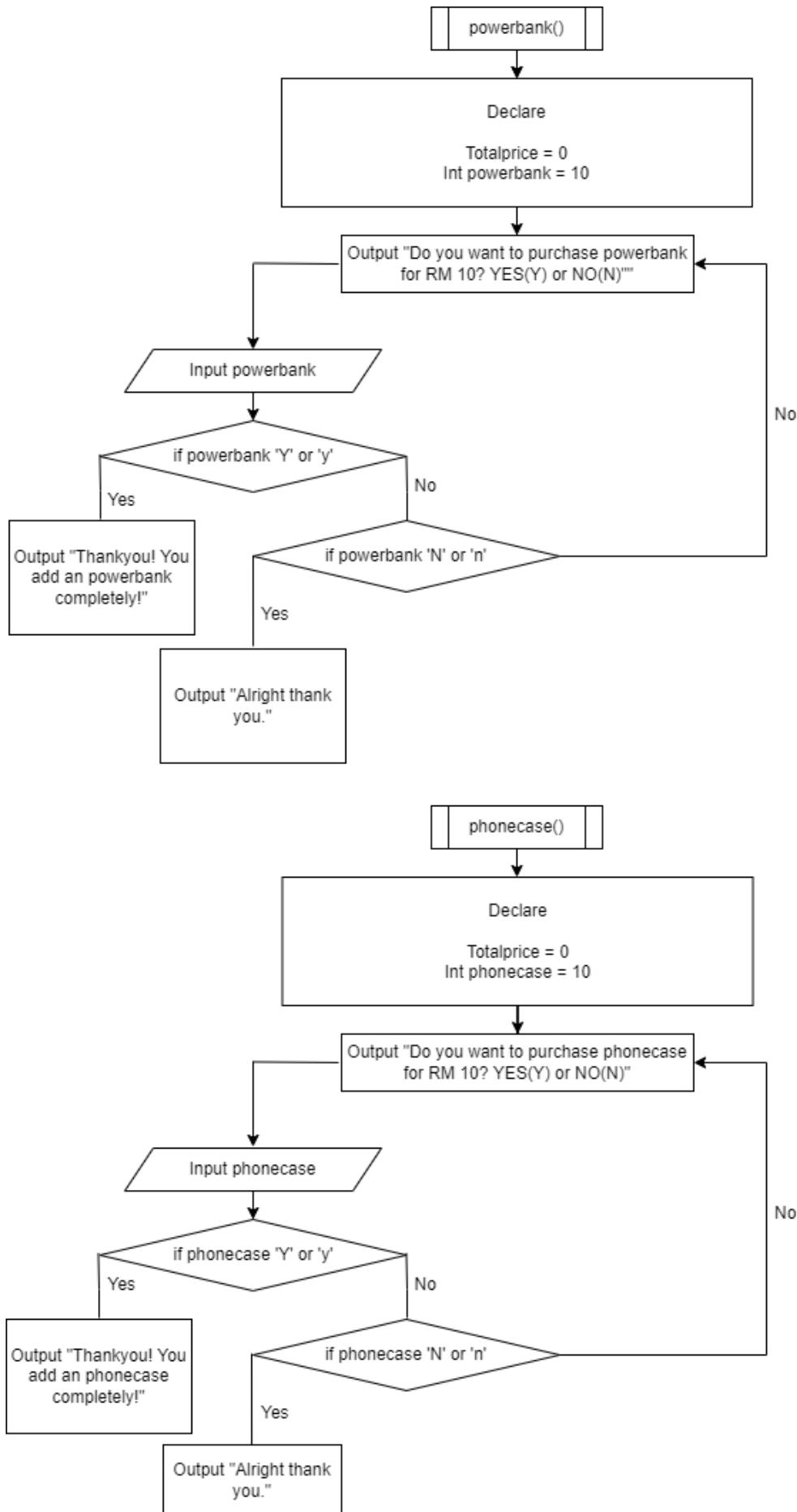


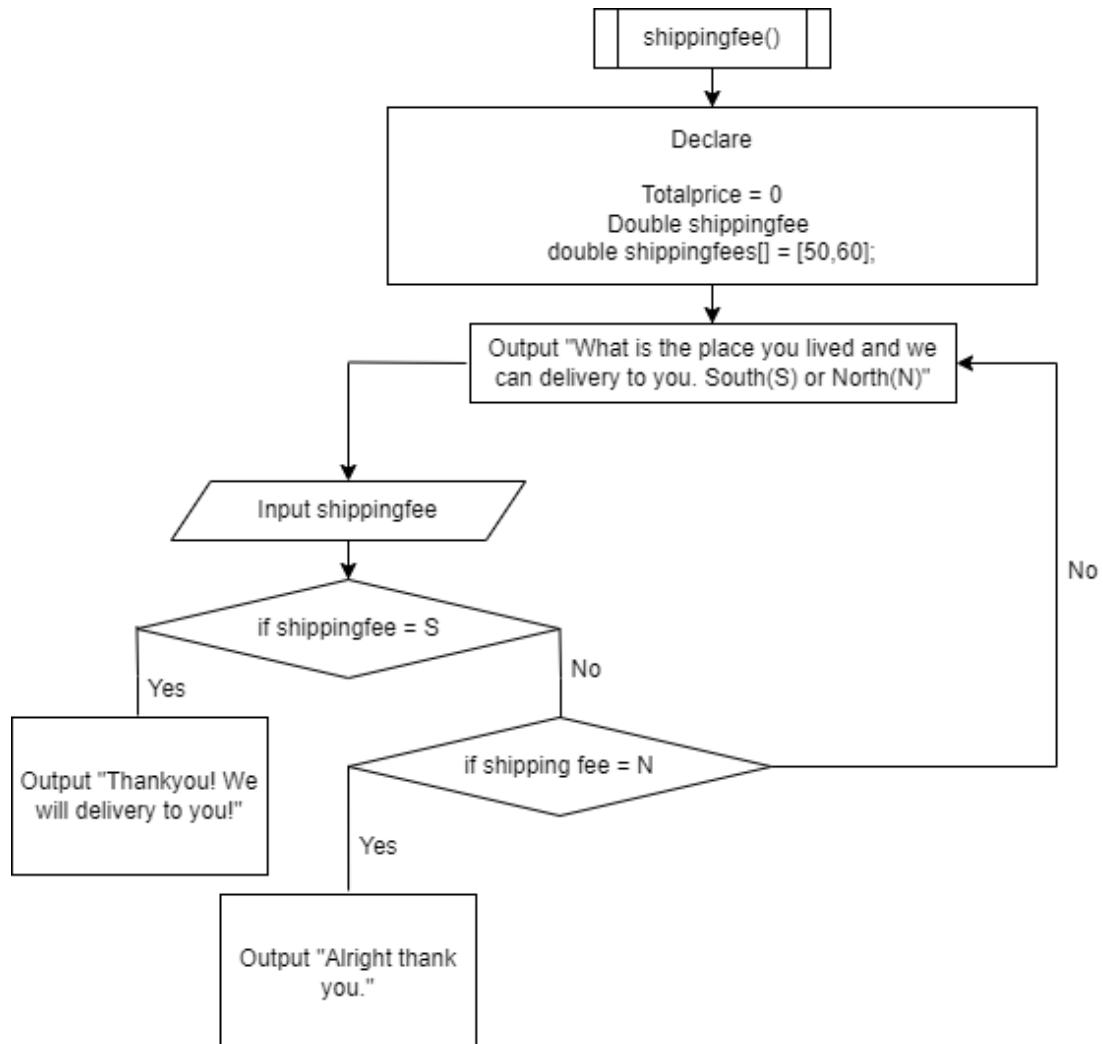


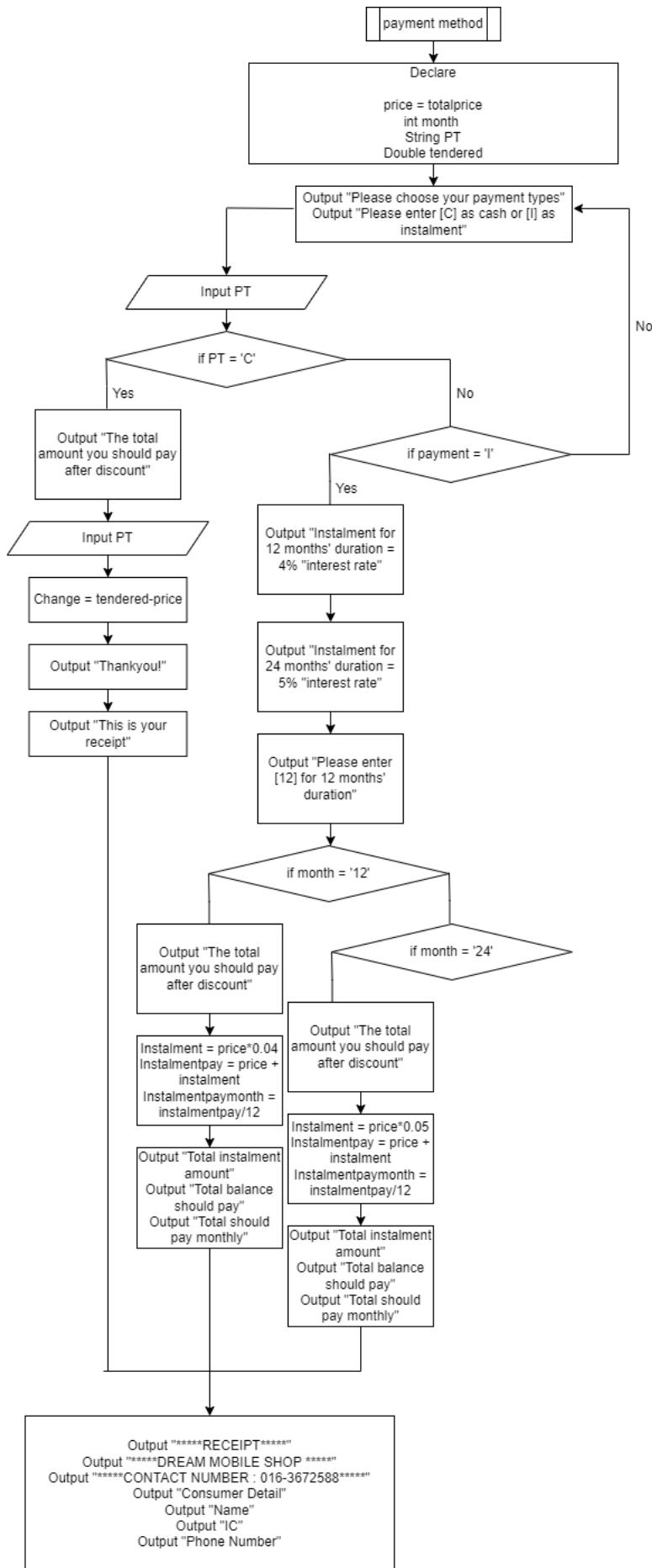


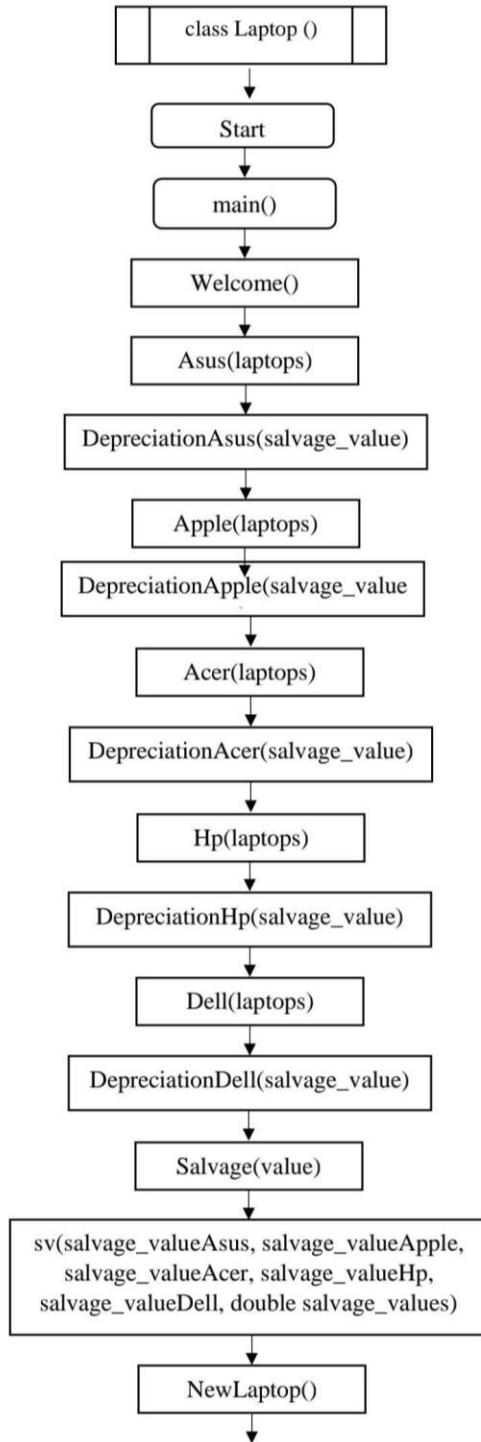


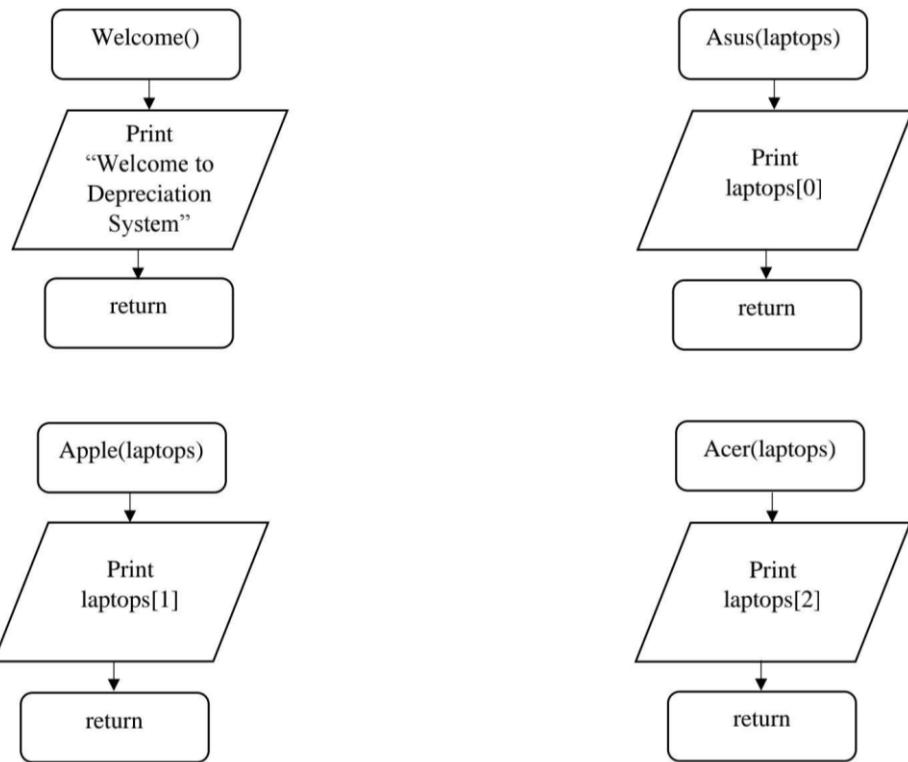
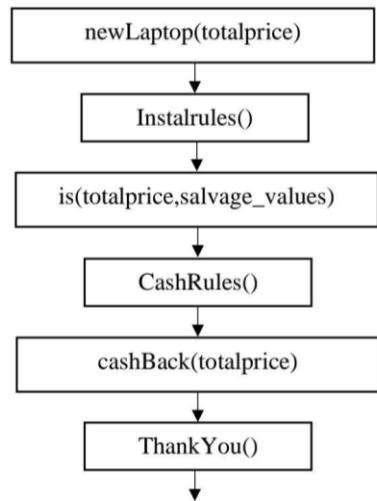


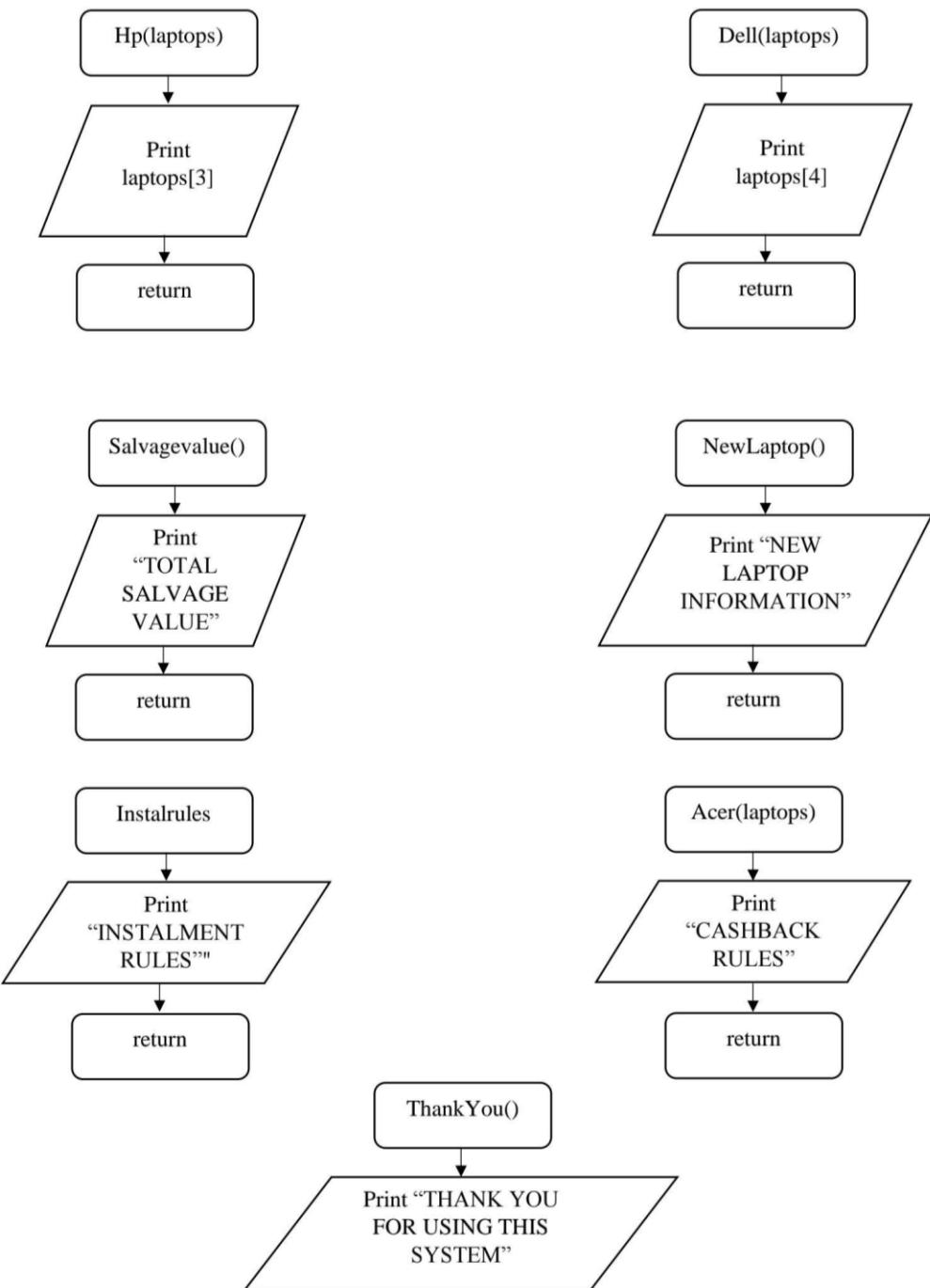


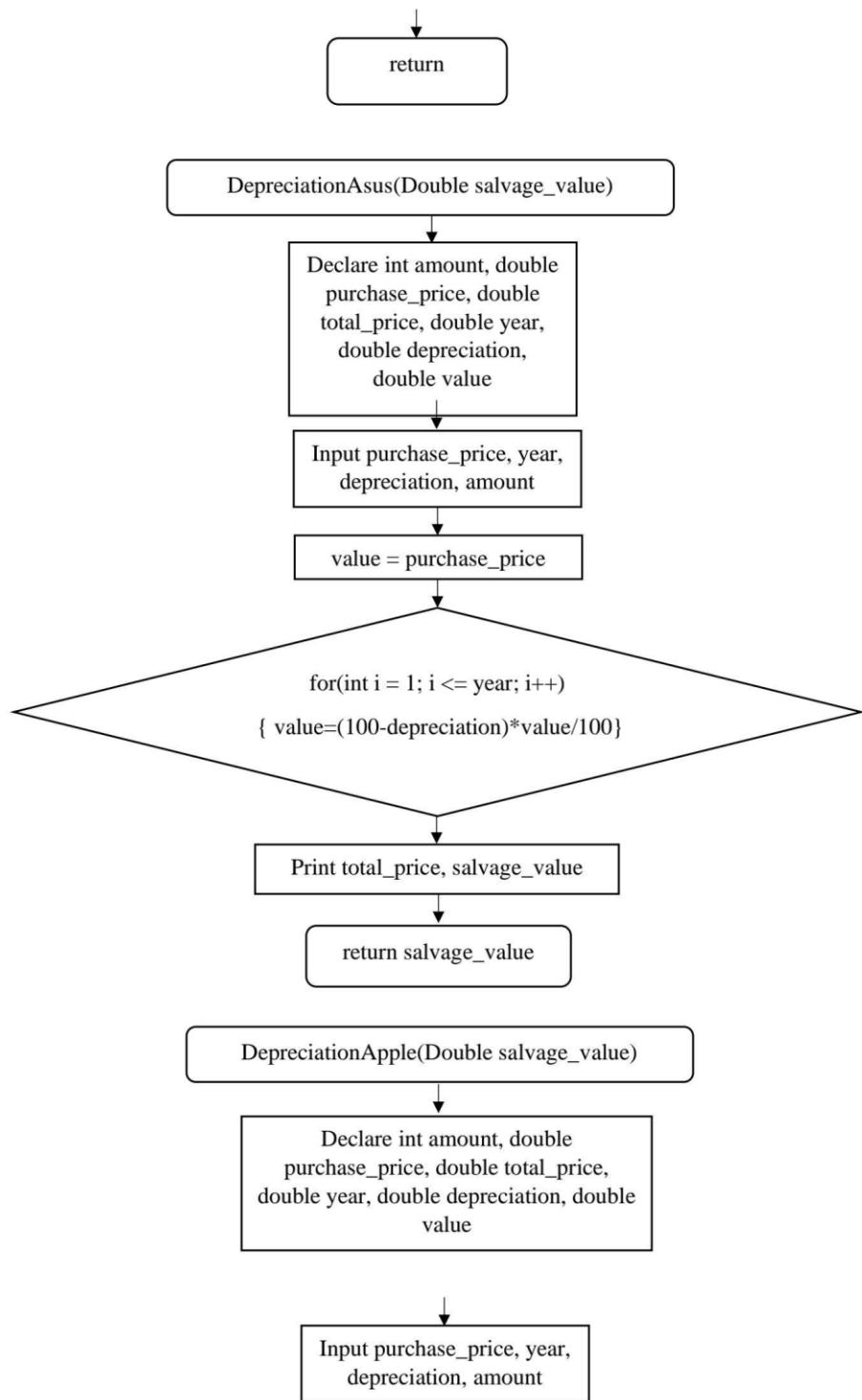


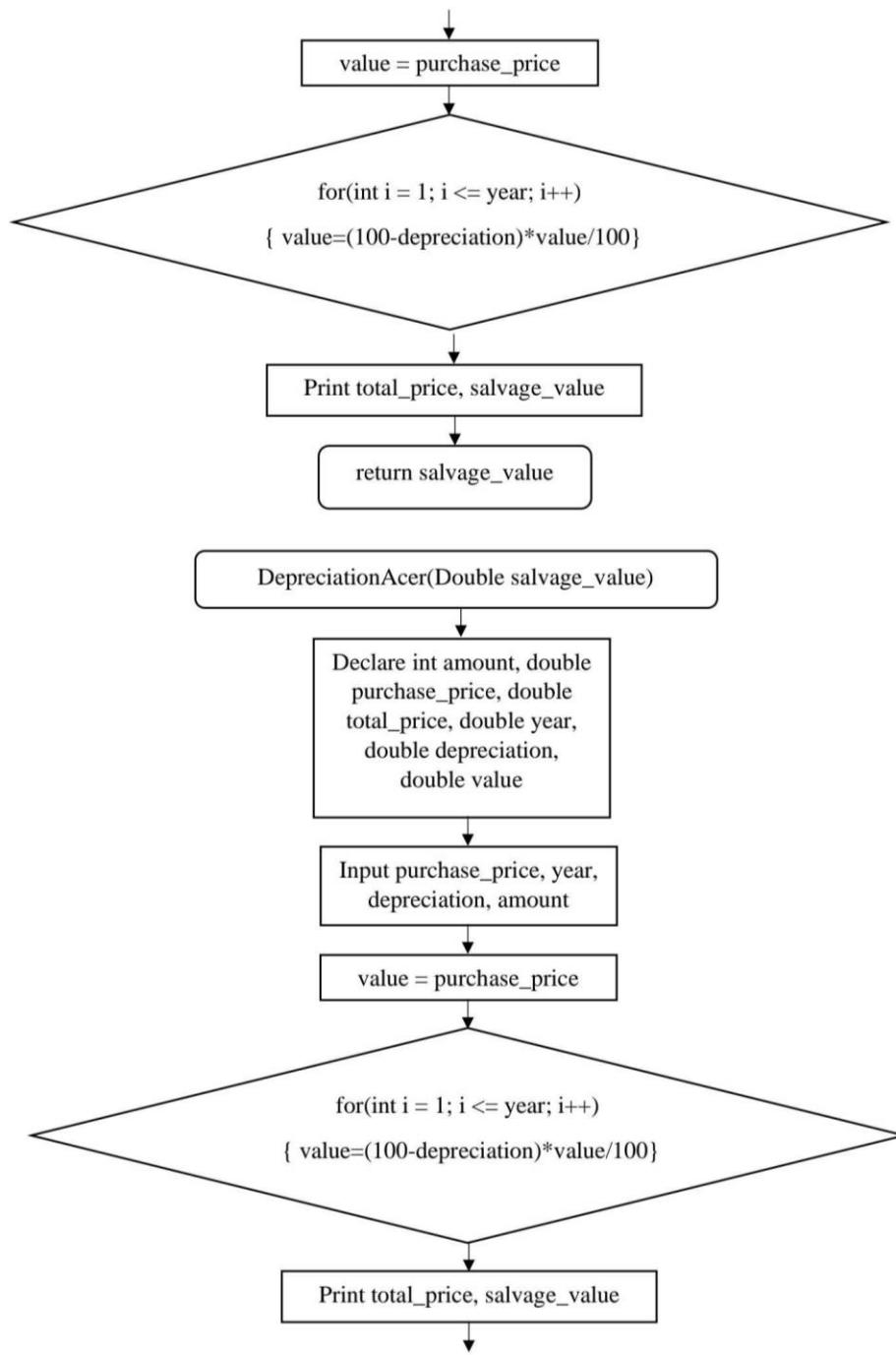


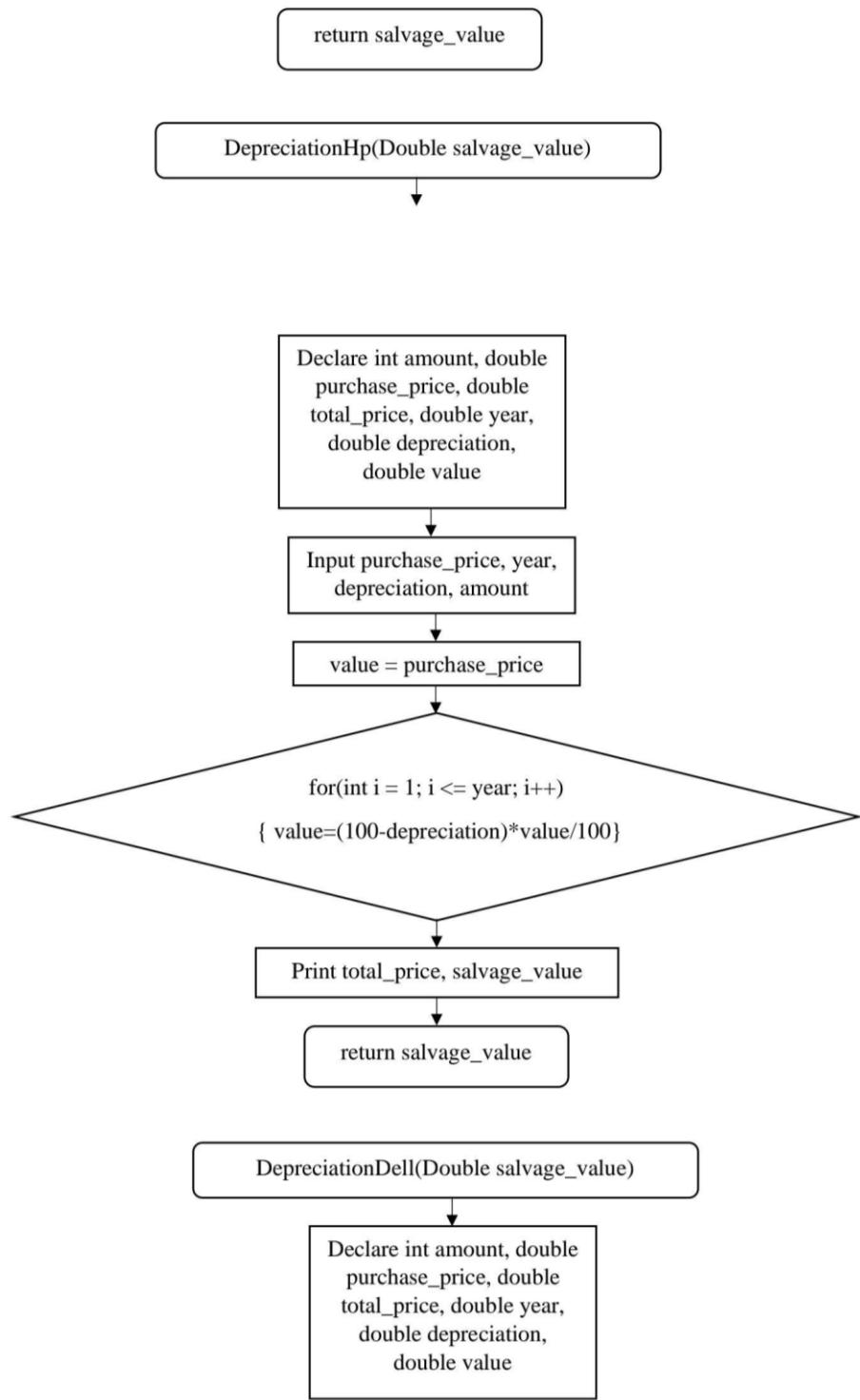


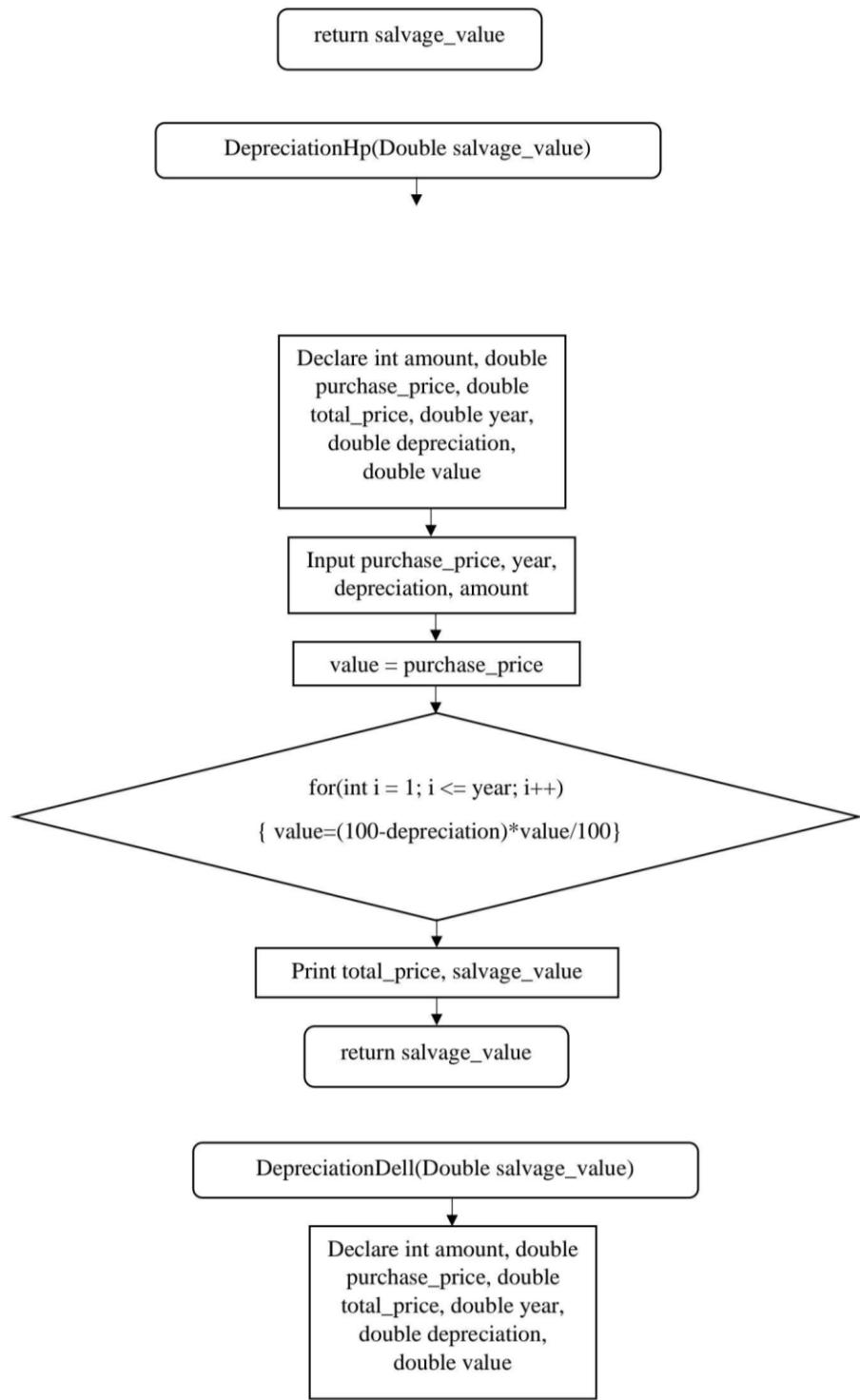


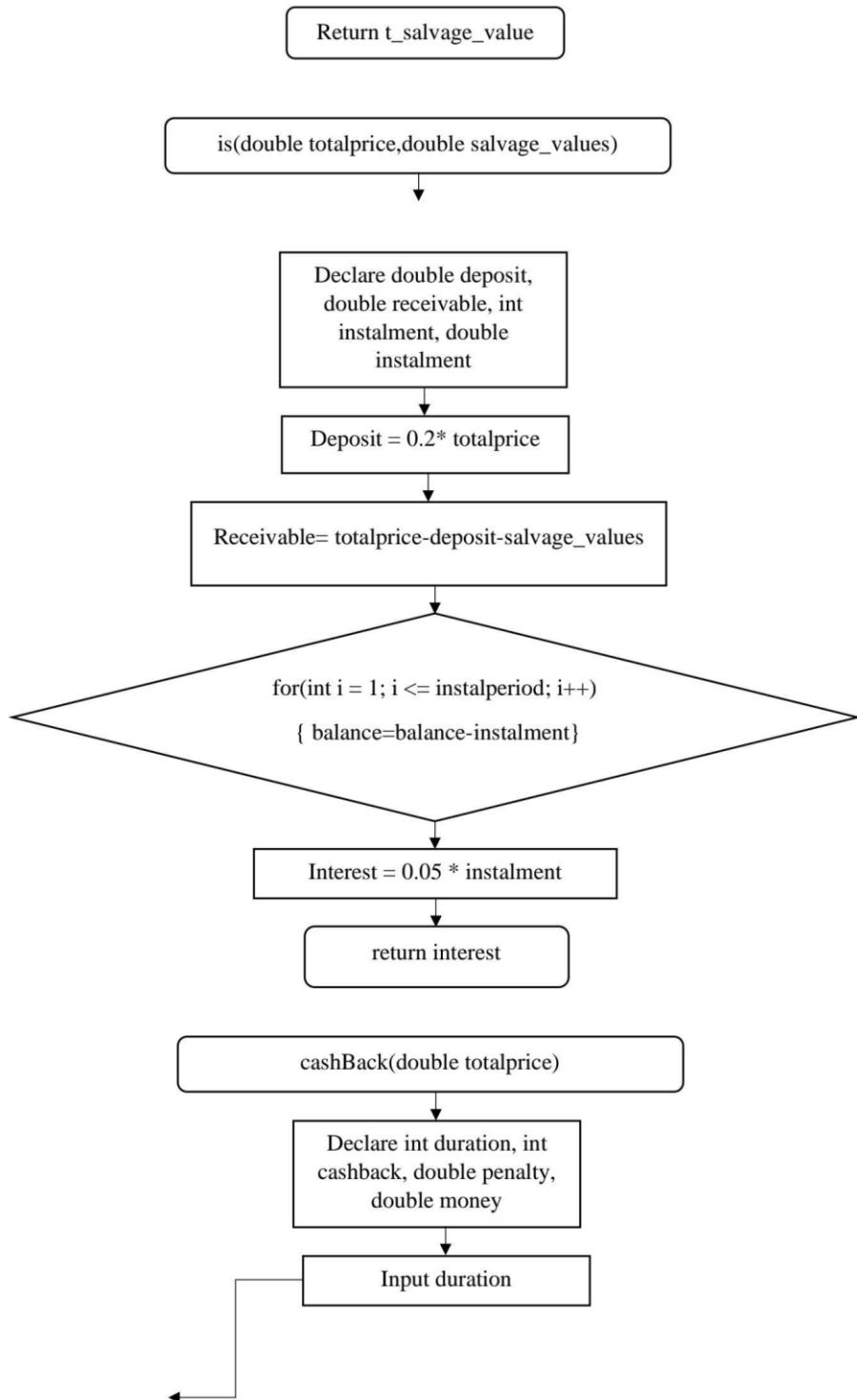


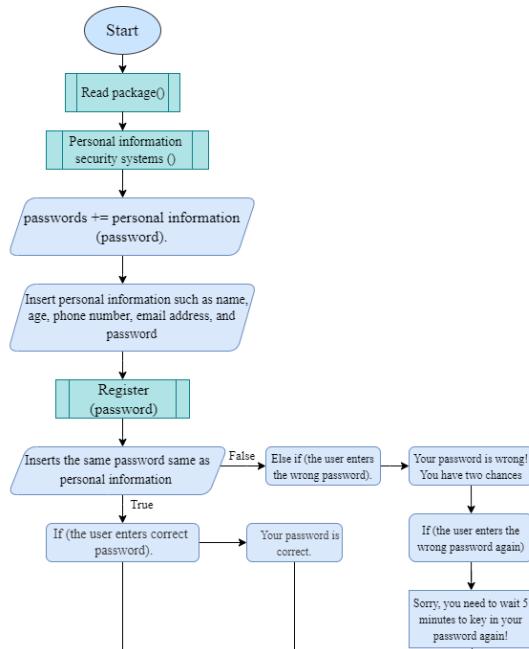
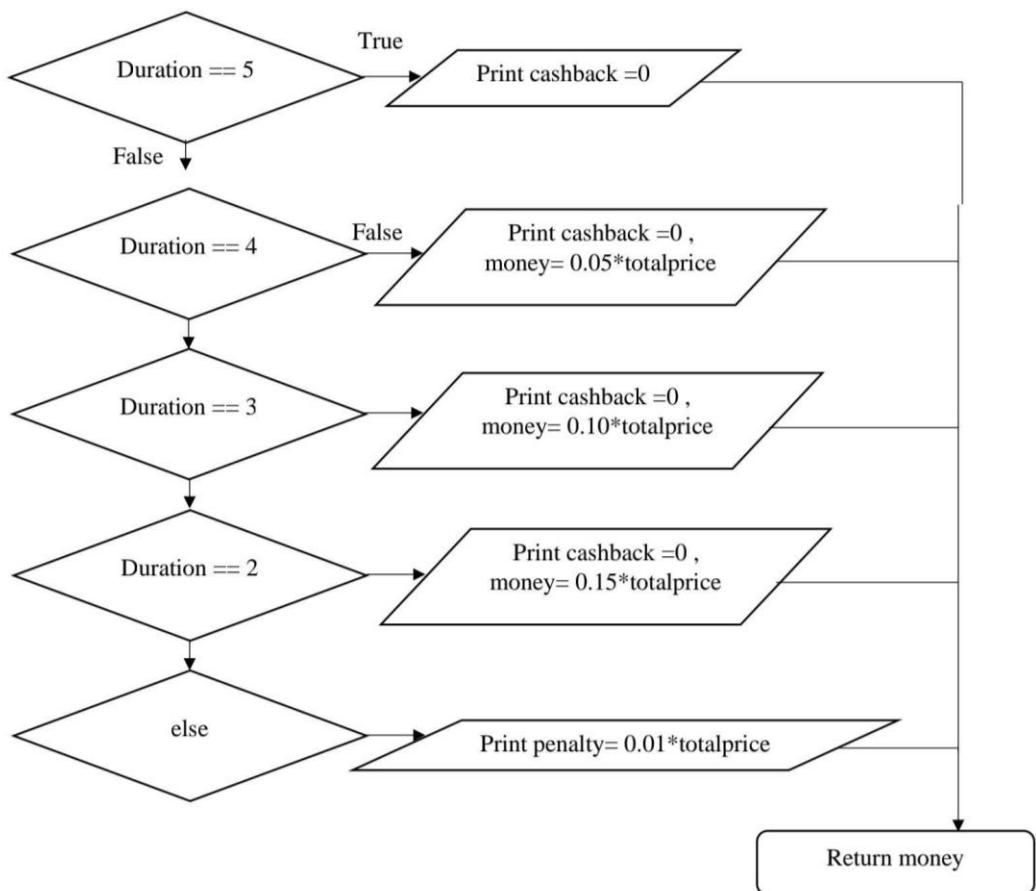


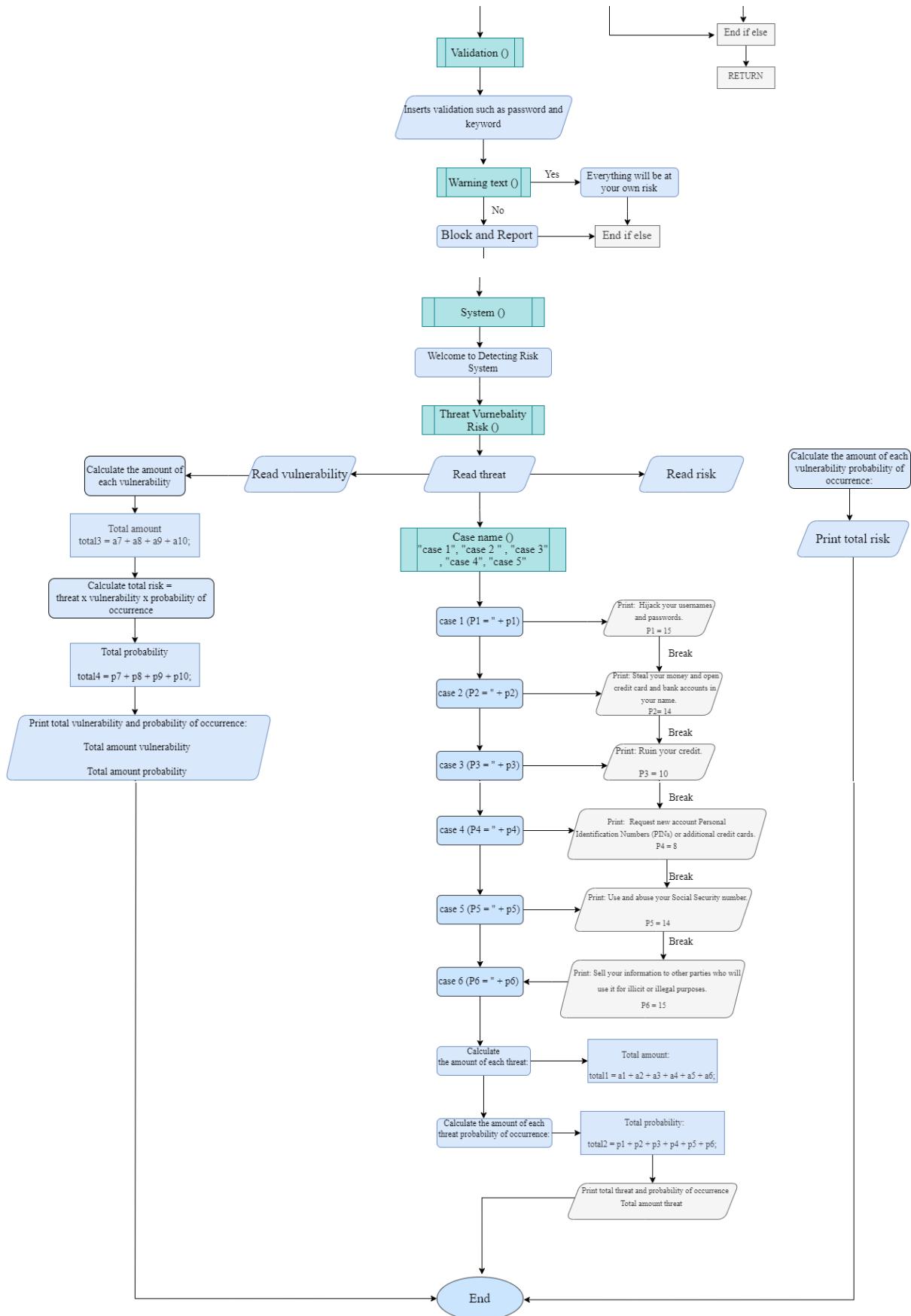


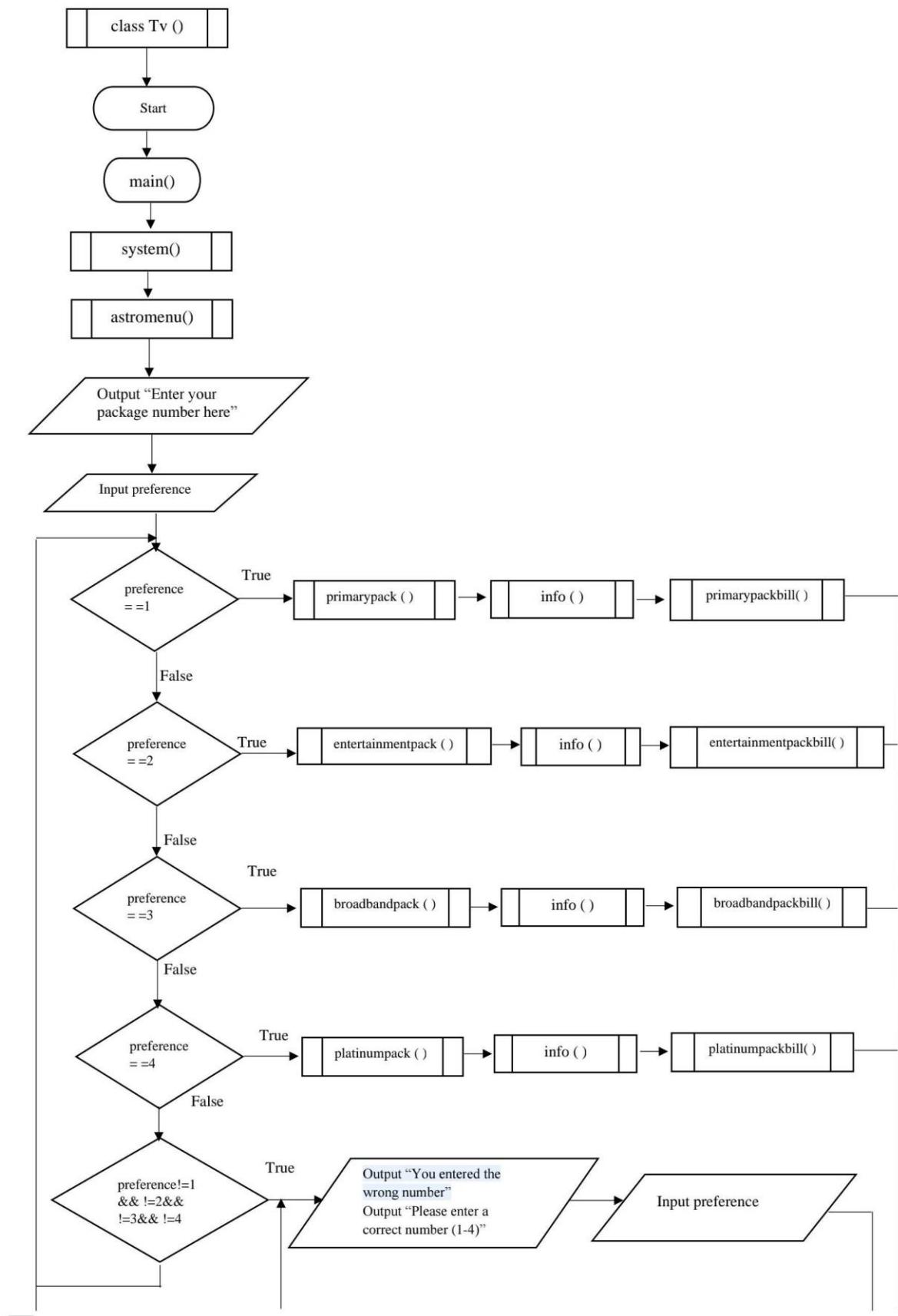


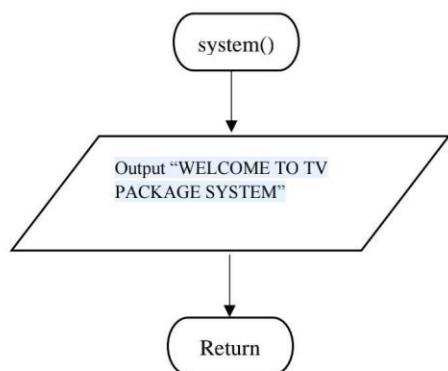
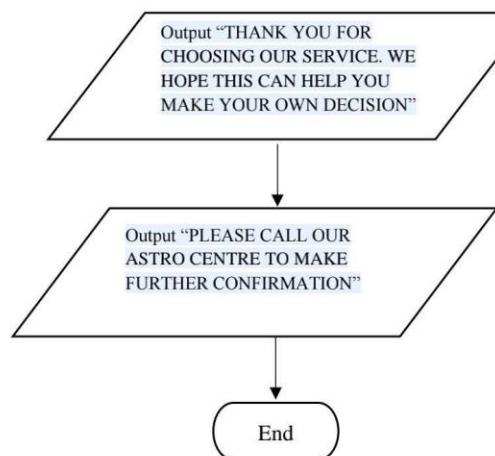
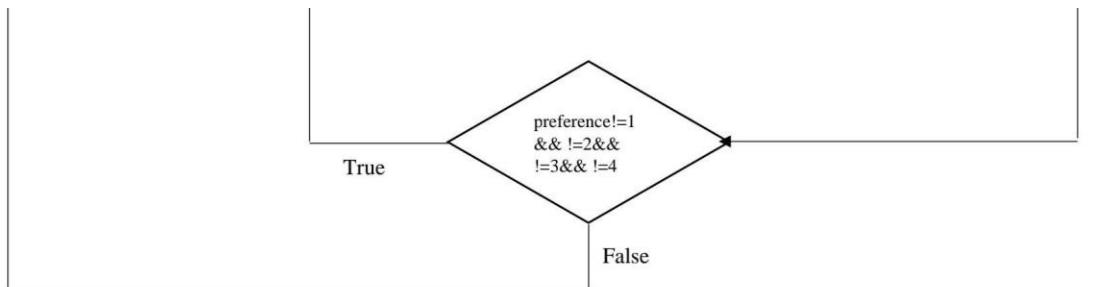


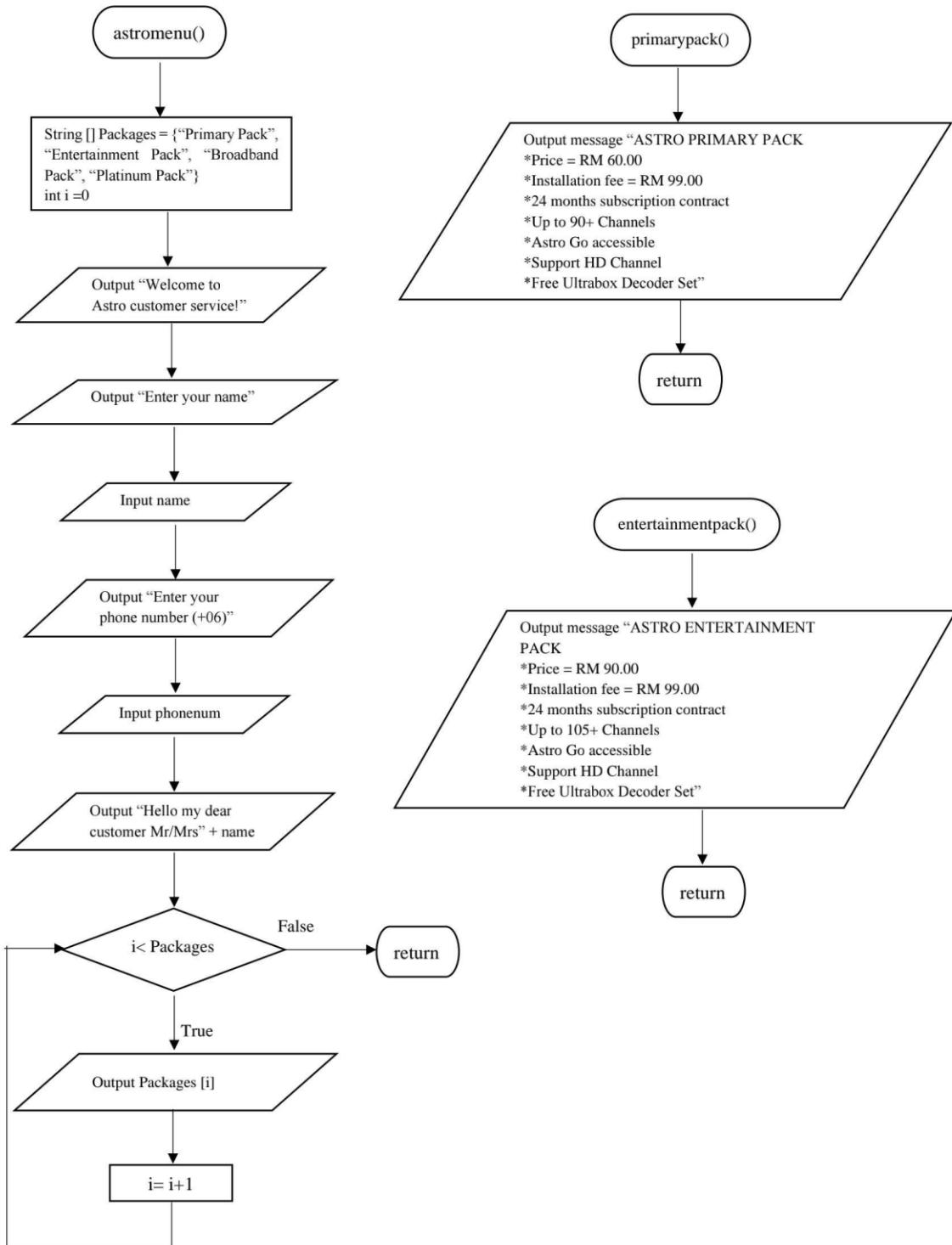


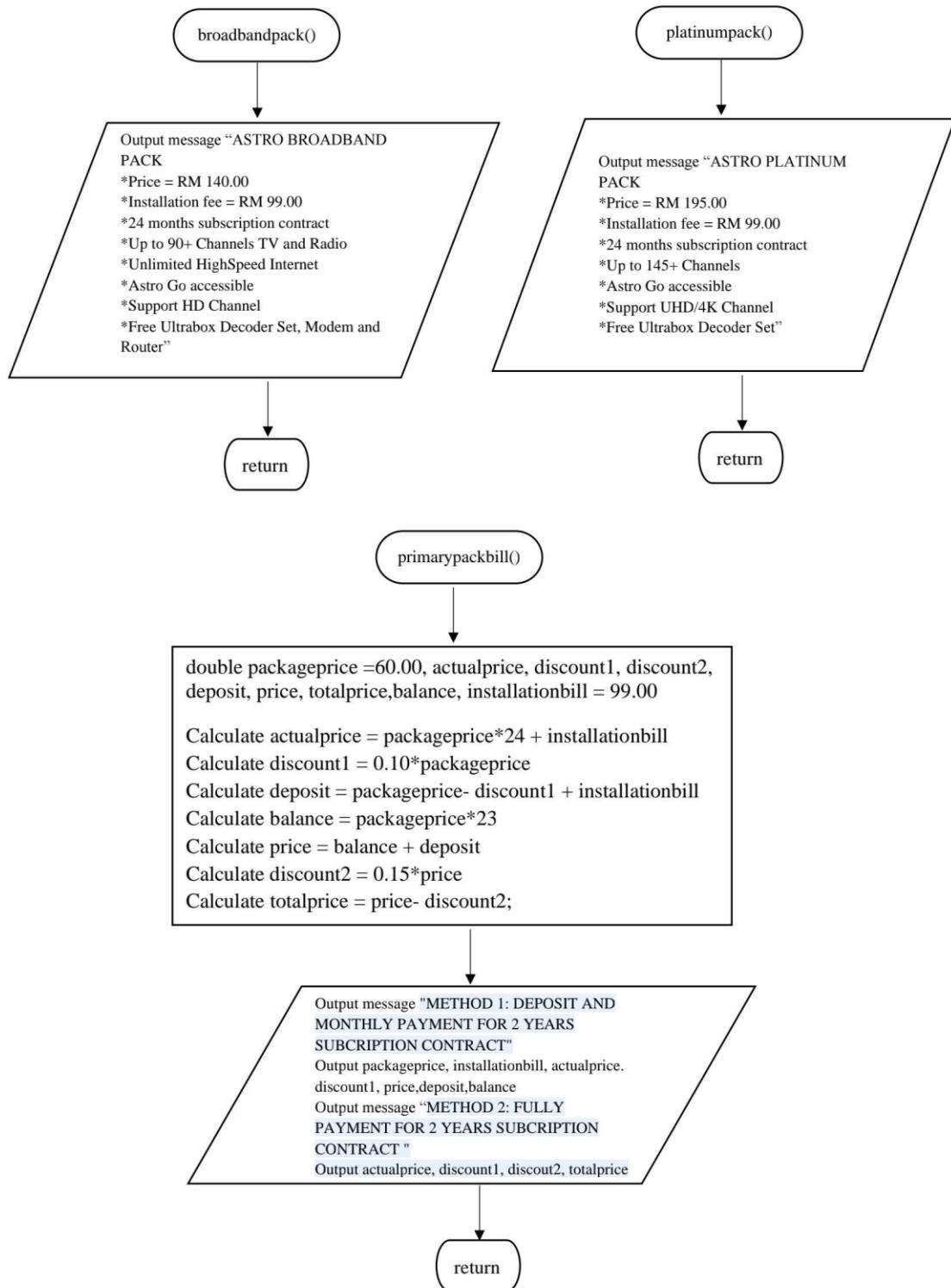


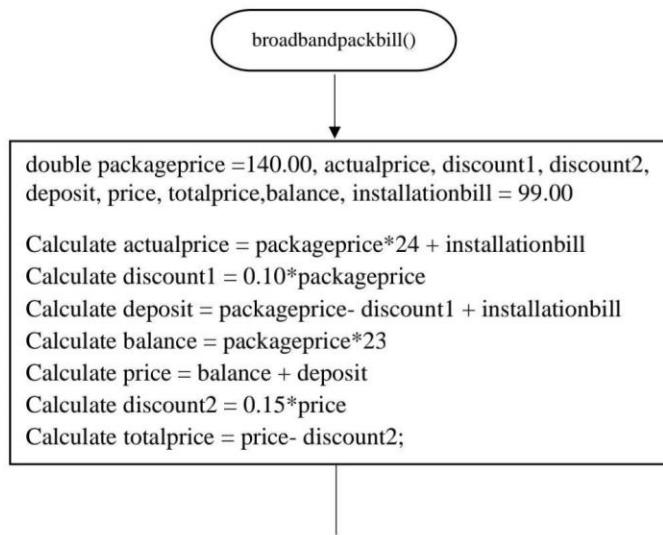
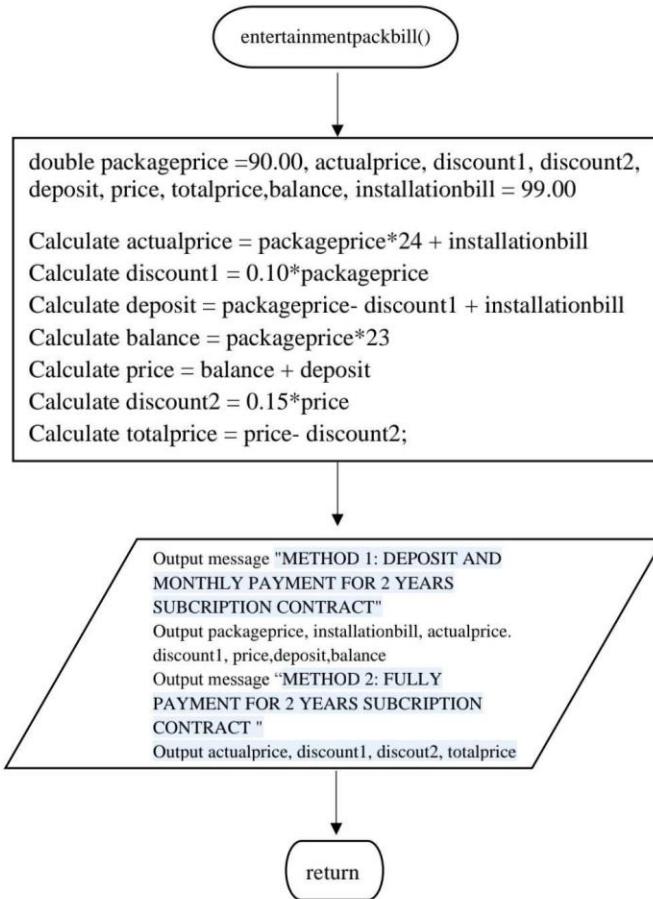


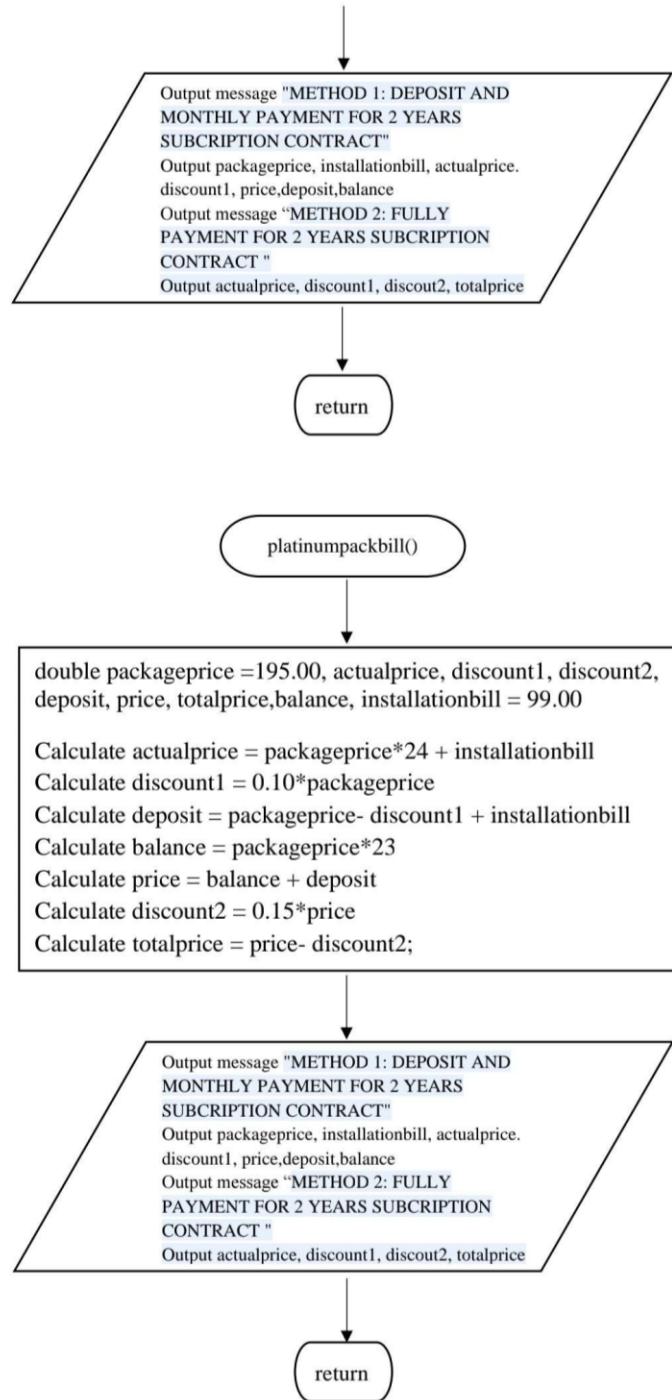


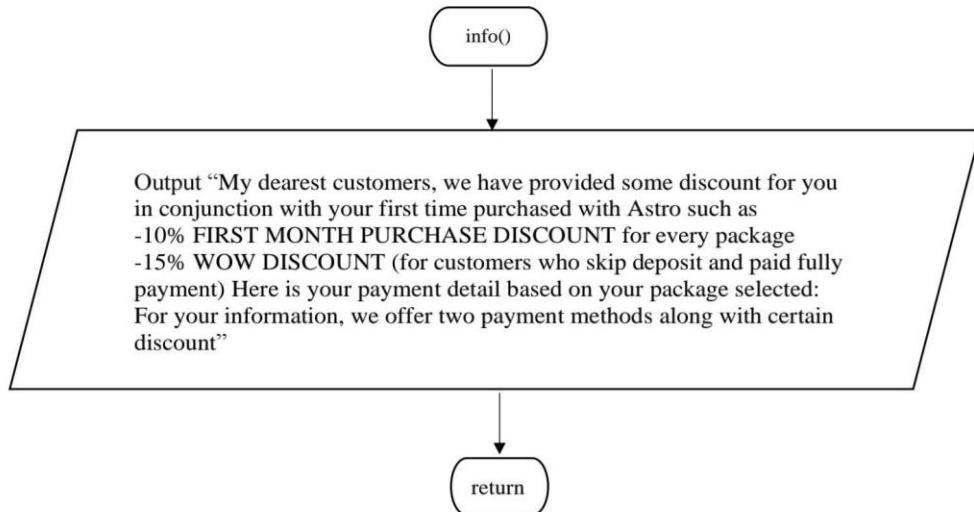












3.0 CODING

3.1 Main Menu

```

A211 STA 1113 C - Project\src\project\Menu.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Men Java Mobile Java MobileJava SaitJava Tr Java
1 Men Java project;
2 import java.util.Scanner;
3 public class Menu {
4     public static Scanner sc = new Scanner(System. in );
5     public void main(String[] args) {
6         // TODO Auto-generated method stub
7         userIn();
8         system();
9     }
10     int option;
11     do
12     {
13         system.out.println("Menu ");
14         system.out.println("1. INTERNET USAGE CALCULATION SYSTEM");
15         system.out.println("2. MOBILE ACCESSORIES SYSTEM");
16         system.out.println("3. LAPTOPS AND TABLETS SYSTEM");
17         system.out.println("4. RECEIVING RISK SYSTEM");
18         system.out.println("5. TV PACKAGE SYSTEM");
19         system.out.println("6. Exit");
20         system.out.print("Please select an option : ");
21         option = sc.nextInt();
22         switch(option)
23         {
24             case 1:
25                 Internet a = new Internet();
26                 a.main(args);
27                 break;
28             case 2:
29                 Mobile b = new Mobile();
30                 b.main(args);
31                 break;
32             case 3:
33                 Laptop c = new Laptop();
34                 c.main(args);
35                 break;
36             case 4:
37                 Satellit d = new Satellit();
38                 d.main(args);
39                 break;
40             case 5:
41                 TV e = new TV();
42                 e.main(args);
43         }
44     } while(option != 6);
45 }
46 public static void userIn()
47 {
48     system.out.print("Please enter the following information");
49     system.out.print("Name: ");
50     String name = sc.nextLine();
51     system.out.print("TC: ");
52     String tc = sc.nextLine();
53     system.out.print("Phone number: ");
54     String phonenumber = sc.nextLine();
55     system.out.println();
56     String user[] = { "Name": name, "TC": tc, "Phone number": phonenumber };
57     System.out.println("This is your information!!!");
58     System.out.println(user[0]+user[1]);
59     System.out.println(user[0]+user[1]+user[2]);
60     System.out.println(user[0]+user[2]+user[1]);
61     System.out.println();
62 }
63 public static void tO()
64 {
65     System.out.println("Thank you. See you next time!!!");
66 }
67 public static void s()
68 {
69     System.out.println("Welcome to Technology System");
70     System.out.println("This is our menu, please choose the services you want!");
71     System.out.println();
72 }
73

```

This screenshot shows the Eclipse IDE interface with the "Menu.java" file open. The code defines a "Menu" class with a main method. It uses a switch statement to handle different service options (1-5) and an exit option (6). Each service option calls a corresponding class's main method (Internet, Mobile, Laptop, Satellit, TV). The user is prompted to enter their name, TC, and phone number, which are then displayed. The code also includes a "userIn" method for input handling and a "tO" method for output.

```

A211 STA 1113 C - Project\src\project\Menu.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Men Java Mobile Java MobileJava SaitJava Tr Java
1 Men Java project;
2 import java.util.Scanner;
3 public class Menu {
4     public static Scanner sc = new Scanner(System. in );
5     public void main(String[] args) {
6         // TODO Auto-generated method stub
7         userIn();
8         system();
9         System.out.println("Welcome to Technology System");
10        System.out.println("This is our menu, please choose the services you want!");
11        System.out.println();
12    }
13    int option;
14    do
15    {
16        system.out.println("Menu ");
17        system.out.println("1. INTERNET USAGE CALCULATION SYSTEM");
18        system.out.println("2. MOBILE ACCESSORIES SYSTEM");
19        system.out.println("3. LAPTOPS AND TABLETS SYSTEM");
20        system.out.println("4. RECEIVING RISK SYSTEM");
21        system.out.println("5. TV PACKAGE SYSTEM");
22        system.out.println("6. Exit");
23        system.out.print("Please select an option : ");
24        option = sc.nextInt();
25        switch(option)
26        {
27            case 1:
28                Internet a = new Internet();
29                a.main(args);
30                break;
31            case 2:
32                Mobile b = new Mobile();
33                b.main(args);
34                break;
35            case 3:
36                Laptop c = new Laptop();
37                c.main(args);
38                break;
39            case 4:
40                Satellit d = new Satellit();
41                d.main(args);
42                break;
43            case 5:
44                TV e = new TV();
45                e.main(args);
46                break;
47            case 6:
48                tyO();
49                break;
50            default:
51                system.out.println("Please enter the correct number!");
52                break;
53        }
54    } while(option != 6);
55 }
56 public static void userIn()
57 {
58     system.out.print("Please enter the following information");
59     system.out.print("Name: ");
60     String name = sc.nextLine();
61     system.out.print("TC: ");
62     String tc = sc.nextLine();
63     system.out.print("Phone number: ");
64     String phonenumber = sc.nextLine();
65     system.out.println();
66     String user[] = { "Name": name, "TC": tc, "Phone number": phonenumber };
67     System.out.println("This is your information!!!");
68     System.out.println(user[0]+user[1]);
69     System.out.println(user[0]+user[1]+user[2]);
70     System.out.println(user[0]+user[2]+user[1]);
71     System.out.println();
72 }
73 public static void tO()
74 {
75     System.out.println("Thank you. See you next time!!!");
76 }
77 public static void s()
78 {
79     System.out.println("Welcome to Technology System");
80     System.out.println("This is our menu, please choose the services you want!");
81     System.out.println();
82 }
83

```

This screenshot shows the Eclipse IDE interface with the "Menu.java" file open. The code is identical to the previous one but includes additional code at the top and bottom. It adds a "userIn" method for input handling and a "tO" method for output. The code also includes a "s" method for printing the menu.

3.2 Internet

```

A211 STA 1113 C - Project\src\project\Internet.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
[File] [Edit] [Source] [Refactor] [Navigate] [Search] [Project] [Run] [Window] [Help]
MenuJava InternetJava MobileJava LaptopJava SamJava TJava
1 package project;
2 import java.util.Scanner;
3
4 public class Internet {
5
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         Scanner scanMe=new Scanner(System.in);
9         double z1=0;
10        double z2=0;
11        double z3=0;
12        double z4=0;
13        double z5=0;
14        double z6=0;
15        double z7=0;
16        double z8=0;
17        double z9=0;
18        double z10=0;
19        double z11=0;
20        double z12=0;
21        double z13=0;
22        double z14=0;
23        double z15=0;
24        double z16=0;
25        char cont;
26        System.out.println("*****");
27        do {
28            menu();
29            extraInformation();
30            if(z1==0) {
31                z1=photo(z1);
32            }
33            else if(z2==0) {
34                z2=video(z2);
35            }
36            else if(z3==0) {
37                z3=uploading(z3);
38            }
39            else if(z4==0) {
40                z4=downloading(z4);
41            }
42            else if(z5==0) {
43                cont = scanMe.nextLine().charAt(0);
44                cont=Character.toUpperCase(cont);
45            }
46            if(cont == 'N') {
47                System.out.println("Thankyou!!!");
48            }while(cont == 'Y');
49        }
50    }
51    static Scanner scanMe = new Scanner (System.in);
52
53    public static void system() {
54        System.out.println(WELCOME TO INTERNET USAGE CALCULATION SYSTEM");
55    }
56    public static void mainmenu() {
57        System.out.println("*****");
58        System.out.println(" MAIN MENU ");
59        System.out.println("*****");
60        System.out.println("Check out your daily data usage here!");
61        System.out.println("*****");
62        System.out.println("Enter data in mega bytes : ");
63        double d1 = scanMe.nextDouble();
64        System.out.println("Enter time in minutes : ");
65        double s1 = scanMe.nextDouble();
66        System.out.println("Enter time in hours : ");
67        double h1 = scanMe.nextDouble();
68        System.out.println("Enter time in months : ");
69        double t1 = scanMe.nextDouble();
70        double m1 = (d1)/(t1);
71        double s11 = (d1)/(h1);
72        double s2 = (d1)/(s1);
73        System.out.print("Your data usage per minutes is " );
74        System.out.print("%2f ", s2);
75        System.out.println();
76        double s3 = (d1)/(12);
77        System.out.print("Your data usage per hours is " );
78        System.out.print("%2f ", s3);
79        System.out.println();
80        double s4 = (d1)/(t1);
81        System.out.print("Your data usage per months is " );
82        System.out.print("%2f ", s4);
83    }
84
85    public static void photo(double z1) {
86        System.out.print("Enter the amount of photo : ");
87        System.out.println();
88        double f1 = z1 * z2 * z3;
89        System.out.print("Your total data usage is " );
90        System.out.print("%2f ", f1);
91        System.out.println();
92        System.out.println();
93        double a1 = (s1 + s2 + s3) / 3;
94        System.out.print("Your average amount of data usage everyday is " );
95        System.out.print("%2f ", a1);
96    }
97    public static void extraInformation() {
98        System.out.println("*****");
99        System.out.println("*****");
100       System.out.println("Here are some extra information:");
101       System.out.println("You can check how much data have been used for various kind of activities.");
102       System.out.println("Try to check it out.");
103       System.out.println("*****");
104    }
105
106    public static double photo(double z1) {
107        char photo;
108        System.out.print("Do you want to know the amount of data usage for uploading and downloading photo? (Y/N)");
109        photo = scanMe.nextLine().charAt(0);
110        photo = Character.toUpperCase(photo);
111
112        if(photo == 'Y') {
113            System.out.println("Enter the amount of photo : ");
114            photo = scanMe.nextDouble();
115            z1 = z1 + photo;
116            System.out.print("Your data usage to upload and download photo is " );
117            System.out.print("%2f ", z1);
118        }
119        else if (photo == 'N'){
120            System.out.println("Skip");
121        }
122    }
123
124    public static double video(double z2) {
125        return z2;
126    }
127}

```

```

A211 STA 1113 C - Project\src\project\Internet.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
[File] [Edit] [Source] [Refactor] [Navigate] [Search] [Project] [Run] [Window] [Help]
MenuJava InternetJava MobileJava LaptopJava SamJava TJava
1 package project;
2 import java.util.Scanner;
3
4 public class Internet {
5
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         Scanner scanMe=new Scanner (System.in);
9         String cont;
10        cont=Character.toUpperCase(cont);
11
12        if(cont == 'N') {
13            System.out.println("Thankyou!!! ");
14        }while(cont == 'Y');
15    }
16
17    static Scanner scanMe = new Scanner (System.in);
18
19    public static void system() {
20        System.out.println(WELCOME TO INTERNET USAGE CALCULATION SYSTEM");
21    }
22    public static void mainmenu() {
23        System.out.println("*****");
24        System.out.println(" MAIN MENU ");
25        System.out.println("*****");
26        System.out.println("Check out your daily data usage here!");
27        System.out.println("*****");
28        System.out.println("Enter data in mega bytes : ");
29        double d1 = scanMe.nextDouble();
30        System.out.println("Enter time in minutes : ");
31        double s1 = scanMe.nextDouble();
32        System.out.println("Enter time in hours : ");
33        double h1 = scanMe.nextDouble();
34        System.out.println("Enter time in months : ");
35        double t1 = scanMe.nextDouble();
36        double m1 = (d1)/(t1);
37        double s11 = (d1)/(h1);
38        double s2 = (d1)/(s1);
39        System.out.print("Your data usage per minutes is " );
40        System.out.print("%2f ", s2);
41        System.out.println();
42        double s3 = (d1)/(12);
43        System.out.print("Your data usage per hours is " );
44        System.out.print("%2f ", s3);
45        System.out.println();
46        double s4 = (d1)/(t1);
47        System.out.print("Your data usage per months is " );
48        System.out.print("%2f ", s4);
49    }
50
51    public static void photo(double z1) {
52        System.out.print("Enter the amount of photo : ");
53        System.out.println();
54        double f1 = z1 * z2 * z3;
55        System.out.print("Your total data usage is " );
56        System.out.print("%2f ", f1);
57        System.out.println();
58        System.out.println();
59        double a1 = (s1 + s2 + s3) / 3;
60        System.out.print("Your average amount of data usage everyday is " );
61        System.out.print("%2f ", a1);
62    }
63    public static void extraInformation() {
64        System.out.println("*****");
65        System.out.println("*****");
66        System.out.println("Here are some extra information:");
67        System.out.println("You can check how much data have been used for various kind of activities.");
68        System.out.println("Try to check it out.");
69        System.out.println("*****");
70    }
71
72    public static double photo(double z1) {
73        char photo;
74        System.out.print("Do you want to know the amount of data usage for uploading and downloading photo? (Y/N)");
75        photo = scanMe.nextLine().charAt(0);
76        photo = Character.toUpperCase(photo);
77
78        if(photo == 'Y') {
79            System.out.println("Enter the amount of photo : ");
80            photo = scanMe.nextDouble();
81            z1 = z1 + photo;
82            System.out.print("Your data usage to upload and download photo is " );
83            System.out.print("%2f ", z1);
84        }
85        else if (photo == 'N'){
86            System.out.println("Skip");
87        }
88    }
89
90    public static double video(double z2) {
91        return z2;
92    }
93}

```

```

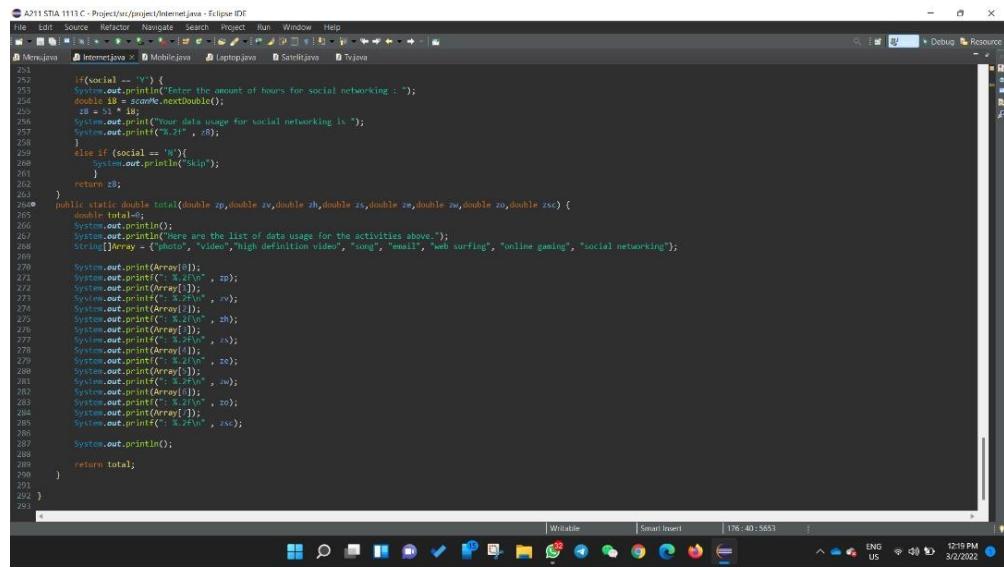
A211 STA 1113 C - Project\src\project\Internet.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
[File] [Edit] [Source] [Refactor] [Navigate] [Search] [Project] [Run] [Window] [Help]
MenuJava InternetJava MobileJava LaptopJava SamJava TJava
1 package project;
2 import java.util.Scanner;
3
4 public class Internet {
5
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         Scanner scanMe=new Scanner (System.in);
9         String cont;
10        cont=Character.toUpperCase(cont);
11
12        if(cont == 'N') {
13            System.out.println("Thankyou!!! ");
14        }while(cont == 'Y');
15    }
16
17    static Scanner scanMe = new Scanner (System.in);
18
19    public static void system() {
20        System.out.print("*****");
21        System.out.println(" MAIN MENU ");
22        System.out.println("*****");
23        System.out.println("Check out your daily data usage here!");
24        System.out.println("*****");
25        System.out.println("Enter data in mega bytes : ");
26        double d1 = scanMe.nextDouble();
27        System.out.println("Enter time in minutes : ");
28        double s1 = scanMe.nextDouble();
29        System.out.println("Enter time in hours : ");
30        double h1 = scanMe.nextDouble();
31        System.out.println("Enter time in months : ");
32        double t1 = scanMe.nextDouble();
33        double m1 = (d1)/(t1);
34        double s11 = (d1)/(h1);
35        double s2 = (d1)/(s1);
36        System.out.print("Your data usage per minutes is " );
37        System.out.print("%2f ", s2);
38        System.out.println();
39        double s3 = (d1)/(12);
40        System.out.print("Your data usage per hours is " );
41        System.out.print("%2f ", s3);
42        System.out.println();
43        double s4 = (d1)/(t1);
44        System.out.print("Your data usage per months is " );
45        System.out.print("%2f ", s4);
46    }
47
48    public static void photo(double z1) {
49        System.out.print("Enter the amount of photo : ");
50        System.out.println();
51        double f1 = z1 * z2 * z3;
52        System.out.print("Your total data usage is " );
53        System.out.print("%2f ", f1);
54        System.out.println();
55        System.out.println();
56        double a1 = (s1 + s2 + s3) / 3;
57        System.out.print("Your average amount of data usage everyday is " );
58        System.out.print("%2f ", a1);
59    }
60    public static void extraInformation() {
61        System.out.println("*****");
62        System.out.println("*****");
63        System.out.println("Here are some extra information:");
64        System.out.println("You can check how much data have been used for various kind of activities.");
65        System.out.println("Try to check it out.");
66        System.out.println("*****");
67    }
68
69    public static double photo(double z1) {
70        char photo;
71        System.out.print("Do you want to know the amount of data usage for uploading and downloading photo? (Y/N)");
72        photo = scanMe.nextLine().charAt(0);
73        photo = Character.toUpperCase(photo);
74
75        if(photo == 'Y') {
76            System.out.println("Enter the amount of photo : ");
77            photo = scanMe.nextDouble();
78            z1 = z1 + photo;
79            System.out.print("Your data usage to upload and download photo is " );
80            System.out.print("%2f ", z1);
81        }
82        else if (photo == 'N'){
83            System.out.println("Skip");
84        }
85    }
86
87    public static double video(double z2) {
88        return z2;
89    }
90}

```

```
AP11 STA 1113 C - Project/ur/project/InternetJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
File Java X MobileJava LaptopJava SateliteJava TyJava
121 public static double video(double zz) {
122     System.out.println();
123     char video;
124     System.out.print("Do you want to know the amount of data usage for streaming videos? (Y/N)");
125     video = scanMe.next().charAt(0);
126     video = Character.toLowerCase(video);
127
128     if(video == 'Y') {
129         System.out.print("Enter the amount of hour for standard definition video : ");
130         double zd = scanMe.nextDouble();
131         zd = 750 * zd;
132         System.out.print("Your data usage to stream standard definition video is ");
133         System.out.printf("%.2f", zd);
134     }
135     else if(video == 'N'){
136         System.out.println("Skip");
137     }
138     return zz;
139 }
140
141 public static double hd(double zz) {
142     System.out.println();
143     System.out.println();
144
145     System.out.print("Enter the amount of hour for high definition video : ");
146     double zd = scanMe.nextDouble();
147     zd = 2000 * zd;
148     System.out.print("Your data usage to stream high definition video is ");
149     System.out.printf("%.2f", zd);
150
151     return zd;
152 }
153
154 public static double song(double zd) {
155     System.out.println();
156     System.out.println();
157
158     char song;
159     System.out.print("Do you want to know the amount of data usage for listening to songs? (Y/N)");
160     song = scanMe.next().charAt(0);
161     song = Character.toLowerCase(song);
162
163     if(song == 'Y') {
164         System.out.println("Enter the total amount of every 4 minutes for songs : ");
165
166     }
167 }
168
```

```
AP11 STA 1113 C - Project/ur/project/InternetJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
File Java X MobileJava LaptopJava SateliteJava TyJava
169 public static double email(double zd) {
170     System.out.println();
171     System.out.println();
172
173     char email;
174     System.out.print("Do you want to know the amount of data usage for sending emails? (Y/N)");
175     email = scanMe.next().charAt(0);
176     email = Character.toLowerCase(email);
177
178     if(email == 'Y') {
179         System.out.print("Enter the amount of email : ");
180         double zd1 = scanMe.nextDouble();
181         zd1 = 0.5 * zd1;
182         System.out.print("Your data usage to send emails is ");
183         System.out.printf("%.2f", zd1);
184     }
185     else if(email == 'N'){
186         System.out.println("Skip");
187     }
188     return zd;
189 }
190
191 public static double web(double zd) {
192     System.out.println();
193     System.out.println();
194
195     char web;
196     System.out.print("Do you want to know the amount of data usage for web surfing? (Y/N)");
197     web = scanMe.next().charAt(0);
198     web = Character.toLowerCase(web);
199
200     if(web == 'Y') {
201         System.out.println("Enter the amount of hours for web surfing : ");
202
203     }
204 }
205
```

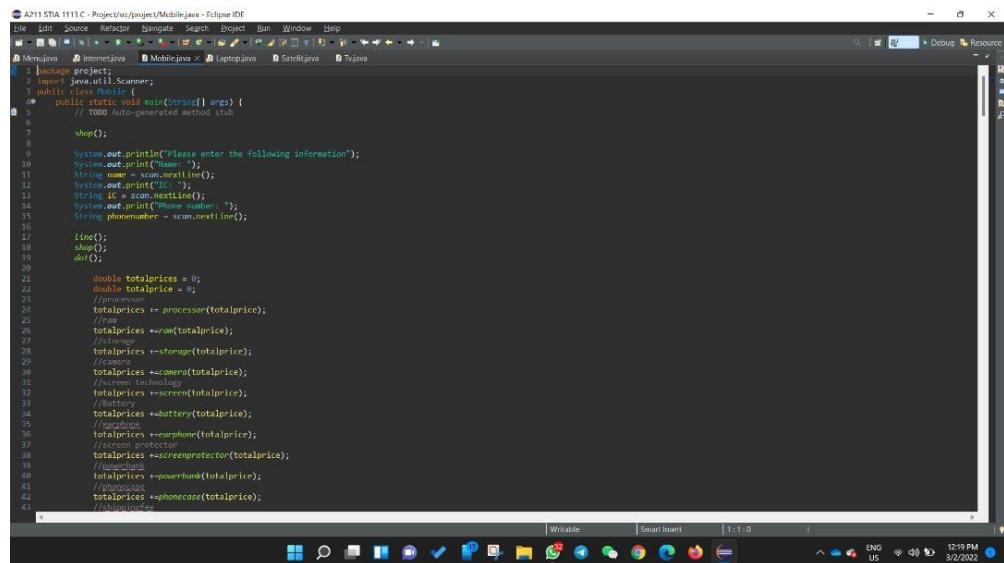
```
AP11 STA 1113 C - Project/ur/project/InternetJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
File Java X MobileJava LaptopJava SateliteJava TyJava
206 public static double onlinegaming(double zz) {
207     System.out.println();
208     System.out.println();
209
210     char game;
211     System.out.print("Do you want to know the amount of data usage for online gaming? (Y/N)");
212     game = scanMe.next().charAt(0);
213     game = Character.toLowerCase(game);
214
215     if(game == 'Y') {
216         System.out.print("Enter the amount of hours for online gaming : ");
217         double zd2 = scanMe.nextDouble();
218         zd2 = 20 * zd2;
219         System.out.print("Your data usage for online gaming is ");
220         System.out.printf("%.2f", zd2);
221     }
222     else if(game == 'N'){
223         System.out.println("Skip");
224     }
225     return zz;
226 }
227
228 public static double social(double zd) {
229     System.out.println();
230     System.out.println();
231
232     char social;
233     System.out.print("Do you want to know the amount of data usage for social networking? (Y/N)");
234     social = scanMe.next().charAt(0);
235     social = Character.toLowerCase(social);
236
237     if(social == 'Y') {
238         System.out.println("Enter the amount of hours for social networking : ");
239
240     }
241 }
```



```

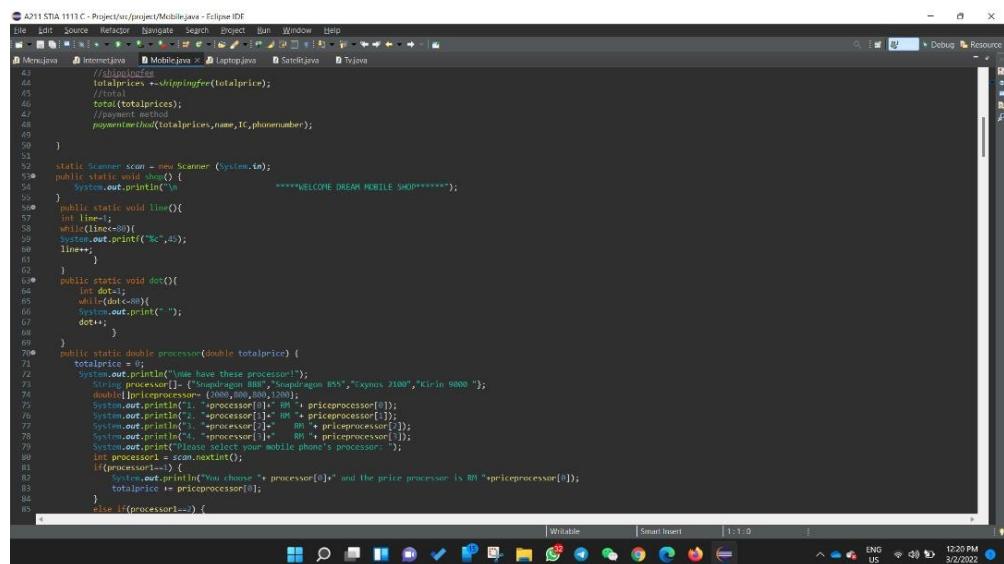
281
282     if(social == "Y"){
283         System.out.println("Enter the amount of hours for social networking : ");
284         double zh = scan.nextDouble();
285         zh = zh * 0.7;
286         System.out.print("Your data usage for social networking is ");
287         System.out.print(zh + "GB");
288     }
289     else if (social == "N"){
290         System.out.print("Skip");
291     }
292     return zh;
293 }
294 public static double total(double zp,double zw,double zh,double zs,double ze,double za,double za,double zsc) {
295     double total=0;
296     System.out.println();
297     System.out.println("Here are the list of data usage for the activities above:");
298     String[] array = {"phone", "video", "high definition video", "song", "email", "web surfing", "online gaming", "social networking"};
299
300     System.out.print(array[0]);
301     System.out.print(array[1]);
302     System.out.print(array[2]);
303     System.out.print(" %.7f\n" , zp);
304     System.out.print(array[3]);
305     System.out.print(" %.7f\n" , zw);
306     System.out.print(array[4]);
307     System.out.print(" %.7f\n" , zh);
308     System.out.print(array[5]);
309     System.out.print(" %.7f\n" , zs);
310     System.out.print(array[6]);
311     System.out.print(" %.7f\n" , ze);
312     System.out.print(array[7]);
313     System.out.print(" %.7f\n" , za);
314     System.out.print(array[8]);
315     System.out.print(" %.7f\n" , za);
316     System.out.print(array[9]);
317     System.out.print(" %.7f\n" , zsc);
318
319     System.out.println();
320     return total;
321 }
322 }
323 
```

3.3 Mobile Phone



```

324 package project;
325 import java.util.Scanner;
326 public class Mobile {
327     public static void main(String[] args) {
328         // TODO Auto-generated method stub
329
330         shop();
331
332         System.out.println("Please enter the following information");
333         System.out.print("Name: ");
334         String name = scan.nextLine();
335         System.out.print("IC: ");
336         String IC = scan.nextLine();
337         System.out.print("Phone number: ");
338         String phonenumber = scan.nextLine();
339
340         long();
341         shop();
342         del();
343
344         double totalprices = 0;
345         double totalprice = 0;
346         //processor
347         totalprices += processor(totalprice);
348         //ram
349         totalprices += ram(totalprice);
350         //storage
351         totalprices += storage(totalprice);
352         //camera
353         totalprices += camera(totalprice);
354         //screen technology
355         totalprices += screen(totalprice);
356         //display
357         totalprices += display(totalprice);
358         //battery
359         totalprices += battery(totalprice);
360         //megaphone
361         totalprices += megaphone(totalprice);
362         //micro SD protective
363         totalprices += microSDprotective(totalprice);
364         //gamer pack
365         totalprices += gamerpack(totalprice);
366         //power bank
367         totalprices += powerbank(totalprice);
368         //phone case
369         totalprices += phonecase(totalprice);
370         //shingling fee
371         totalprices += shippingfee(totalprice);
372         //total
373         total = (totalprices);
374         //payment method
375         paymentmethod((totalprices,name,IC,phonenumber));
376     }
377 }
378 static Scanner scan = new Scanner (System.in);
379 public static void shop() {
380     System.out.println("\n*****WELCOME DREAM MOBILE SHOP*****");
381 }
382 public static void line(){
383     int line;
384     while(line<80){
385         System.out.print(" ");
386         line++;
387     }
388 }
389 public static void dot(){
390     int dots;
391     while(dots<80){
392         System.out.print(".");
393         dots++;
394     }
395 }
396 public static double processor(double totalprice) {
397     totalprice = 0;
398     System.out.println("We have these processor!");
399     System.out.println("1. Intel i5 (quad core, 2.4GHz, 8GB, 1TB, RAM 8GB, Exynos 2100, Kirin 9800 )");
400     double [priceprocessor] = {1000,800,600,1200};
401     System.out.println("1. " + processor[0] + " RM " + priceprocessor[0]);
402     System.out.println("2. " + processor[1] + " RM " + priceprocessor[1]);
403     System.out.println("3. " + processor[2] + " RM " + priceprocessor[2]);
404     System.out.println("4. " + processor[3] + " RM " + priceprocessor[3]);
405     System.out.print("Please select your mobile phone's processor: ");
406     int processor1 = scan.nextInt();
407     if(processor1==1){
408         totalprice += priceprocessor[0];
409     }
410     else if(processor1==2){
411         totalprice += priceprocessor[1];
412     }
413     else if(processor1==3){
414         totalprice += priceprocessor[2];
415     }
416     else if(processor1==4){
417         totalprice += priceprocessor[3];
418     }
419 }
420 
```



```

421
422     totalprices += shippingfee(totalprice);
423     //total
424     total = (totalprices);
425     //payment method
426     paymentmethod((totalprices,name,IC,phonenumber));
427 }
428 }
429 
```

```

A211 STA 1113 C - Project\src\project\Mobilejava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menubar Internet Java Mobilejava Laptopjava Satelitejava Trjava
85     else if(processor==1) {
86         totalprice += priceprocessor[1];
87     }
88     else if(processor==2) {
89         System.out.println("you choose "+ processor[2] + " and the price processor is RM "+priceprocessor[2]);
90         totalprice += priceprocessor[2];
91     }
92     else if(processor==3) {
93         System.out.println("you choose "+ processor[3] + " and the price processor is RM "+priceprocessor[3]);
94         totalprice += priceprocessor[3];
95     }
96     return totalprice;
97 }
98 public static double ram(double totalprice) {
99     totalprice=0;
100    System.out.println("We have these Ram:");
101    String[] [Ram={ "4 GB","8 GB","16 GB"};
102    double[] [priceram={ 100,200,300};
103    System.out.println("1. "+ram[0]+": RM "+ priceram[0]);
104    System.out.println("2. "+ram[1]+": RM "+ priceram[1]);
105    System.out.println("3. "+ram[2]+": RM "+ priceram[2]);
106    System.out.print("Please select your mobile phone's ram: ");
107    int ram = scan.nextInt();
108
109    if(ram==1) {
110        System.out.println("you choose "+ ram[0] + " and the priceram is RM "+priceram[0]);
111        totalprice += priceram[0];
112    }
113    else if(ram==2) {
114        System.out.println("you choose "+ ram[1] + " and the priceram is RM "+priceram[1]);
115        totalprice += priceram[1];
116    }
117    else if(ram==3) {
118        System.out.println("you choose "+ ram[2] + " and the priceram is RM "+priceram[2]);
119        totalprice += priceram[2];
120    }
121
122    return totalprice;
123 }
124 public static double storage(double totalprice) {
125     totalprice=0;
126     System.out.println("We have these storage:");
127     String[] [storage={ "32 GB","64 GB","128 GB","256 GB"};
128     double[] [pricestorage={ 100,200,300,400};
129     System.out.println("1. "+storage[0]+": RM "+ pricestorage[0]);
130     System.out.println("2. "+storage[1]+": RM "+ pricestorage[1]);
131     System.out.println("3. "+storage[2]+": RM "+ pricestorage[2]);
132     System.out.println("4. "+storage[3]+": RM "+ pricestorage[3]);
133     System.out.print("Please select your mobile phone's storage: ");
134     int storage = scan.nextInt();
135
136    if(storage==1) {
137        System.out.println("you choose "+ storage[0] + " and the pricestorage is RM "+pricestorage[0]);
138        totalprice += pricestorage[0];
139    }
140    else if(storage==2) {
141        System.out.println("you choose "+ storage[1] + " and the pricestorage is RM "+pricestorage[1]);
142        totalprice += pricestorage[1];
143    }
144    else if(storage==3) {
145        System.out.println("you choose "+ storage[2] + " and the pricestorage is RM "+pricestorage[2]);
146        totalprice += pricestorage[2];
147    }
148    else if(storage==4) {
149        System.out.println("you choose "+ storage[3] + " and the pricestorage is RM "+pricestorage[3]);
150        totalprice += pricestorage[3];
151    }
152
153    return totalprice;
154 }
155 public static double camera(double totalprice) {
156     totalprice=0;
157     System.out.println("We have these camera:");
158     String[] [camera={ "10 MP","32 MP","64 MP"};
159     double[] [pricecamera={ 100,200,300};
160     System.out.println("1. "+camera[0]+": RM "+ pricecamera[0]);
161     System.out.println("2. "+camera[1]+": RM "+ pricecamera[1]);
162     System.out.println("3. "+camera[2]+": RM "+ pricecamera[2]);
163     System.out.print("Please select your mobile phone's camera: ");
164     int camera = scan.nextInt();
165
166    if(camera==1) {
167        System.out.println("you choose "+ camera[0] + " and the pricecamera is RM "+pricecamera[0]);
168        totalprice += pricecamera[0];
169    }
170
171 }
172 public static double screen(double totalprice) {
173     totalprice=0;
174     System.out.println("We have these screen technology:");
175     String[] [screen={ "FHD 6.5", "70% FHD"};
176     double[] [pricescreen={ 1000,700};
177     System.out.println("1. "+screen[0]+": RM "+ pricescreen[0]);
178     System.out.println("2. "+screen[1]+": RM "+ pricescreen[1]);
179     System.out.print("Please select your mobile phone's screen: ");
180     int screen = scan.nextInt();
181
182    if(screen==1) {
183        System.out.println("you choose "+ screen[0] + " and the pricescreen is RM "+pricescreen[0]);
184        totalprice += pricescreen[0];
185    }
186    else if(screen==2) {
187        System.out.println("you choose "+ screen[1] + " and the pricescreen is RM "+pricescreen[1]);
188        totalprice += pricescreen[1];
189    }
190
191    return totalprice;
192 }
193 public static double battery(double totalprice) {
194     totalprice=0;
195     System.out.println("We have these battery:");
196     String[] [Battery={ "4300 mAh","5000 mAh","6000 mAh"};
197     double[] [pricebattery={ 100,200,300};
198     System.out.println("1. "+Battery[0]+": RM "+ pricebattery[0]);
199     System.out.println("2. "+battery[1]+": RM "+ pricebattery[1]);
200     System.out.println("3. "+battery[2]+": RM "+ pricebattery[2]);
201     System.out.print("Please select your mobile phone's battery: ");
202     int battery = scan.nextInt();
203
204    if(battery==1) {

```

```

A211 STA 1113 C - Project\src\project\Mobilejava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menubar Internet Java Mobilejava Laptopjava Satelitejava Trjava
125    System.out.println("you choose "+ battery[0] + " and the pricebattery is RM "+pricebattery[0]);
126    totalprice += pricebattery[0];
127
128 }
129
130 public static void main(String[] args) {
131     double totalprice = 0;
132     System.out.println("Total Price: RM "+totalprice);
133 }
134 
```

```

A211 STA 1113 C - Project\src\project\Mobilejava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menubar Internet Java Mobilejava Laptopjava Satelitejava Trjava
160     }
161     else if(camera==2) {
162         System.out.println("you choose "+ camera[1] + " and the pricecamera is RM "+pricecamera[1]);
163         totalprice += pricecamera[1];
164     }
165     else if(camera==3) {
166         System.out.println("you choose "+ camera[2] + " and the pricecamera is RM "+pricecamera[2]);
167         totalprice += pricecamera[2];
168     }
169     return totalprice;
170 }
171 public static double screen(double totalprice) {
172     totalprice=0;
173     System.out.println("We have these screen technology:");
174     String[] [screen={ "FHD 6.5", "70% FHD"};
175     double[] [pricescreen={ 1000,700};
176     System.out.println("1. "+screen[0]+": RM "+ pricescreen[0]);
177     System.out.println("2. "+screen[1]+": RM "+ pricescreen[1]);
178     System.out.print("Please select your mobile phone's screen: ");
179     int screen = scan.nextInt();
180
181    if(screen==1) {
182        System.out.println("you choose "+ screen[0] + " and the pricescreen is RM "+pricescreen[0]);
183        totalprice += pricescreen[0];
184    }
185    else if(screen==2) {
186        System.out.println("you choose "+ screen[1] + " and the pricescreen is RM "+pricescreen[1]);
187        totalprice += pricescreen[1];
188    }
189
190    return totalprice;
191 }
192 public static double battery(double totalprice) {
193     totalprice=0;
194     System.out.println("We have these battery:");
195     String[] [Battery={ "4300 mAh","5000 mAh","6000 mAh"};
196     double[] [pricebattery={ 100,200,300};
197     System.out.println("1. "+Battery[0]+": RM "+ pricebattery[0]);
198     System.out.println("2. "+battery[1]+": RM "+ pricebattery[1]);
199     System.out.println("3. "+battery[2]+": RM "+ pricebattery[2]);
200     System.out.print("Please select your mobile phone's battery: ");
201     int battery = scan.nextInt();
202
203    if(battery==1) {

```

```

213     if(batteryLow==1) {
214         System.out.println("You choose "+battery[0]+" and the pricebattery is RM "+pricebattery[0]);
215         totalprice += pricebattery[0];
216     }
217     else if(batteryLow==2) {
218         System.out.println("You choose "+battery[1]+" and the pricebattery is RM "+pricebattery[1]);
219         totalprice += pricebattery[1];
220     }
221     else if(batteryLow==3) {
222         System.out.println("You choose "+battery[2]+" and the pricebattery is RM "+pricebattery[2]);
223         totalprice += pricebattery[2];
224     }
225     return totalprice;
226 }
227
228 public static double earphone(double totalprice) {
229     totalprice=0;
230     char earphone;
231     do{
232         System.out.print("\nDo you want to purchase earphone for RM 25? YES(Y) or NO(N)?");
233         int priceearphone=0;
234         earphone = scan.next().charAt(0);
235         if(earphone=='Y' || earphone=='y') {
236             System.out.println("Thank you! You add on earphone completely!");
237             totalprice += priceearphone;
238             break;
239         }
240         else if(earphone=='N' || earphone=='n') {
241             System.out.println("Alright thank you.");
242             break;
243         }
244         else if(earphone != 'Y' || earphone != 'y' || earphone != 'N' || earphone != 'n') {
245             System.out.println("Please enter the correct word!");
246             }while(earphone != 'Y' || earphone != 'y' || earphone != 'N' || earphone != 'n');
247     }while(totalprice<0);
248     return totalprice;
249 }
250
251 public static double screenprotector(double totalprice) {
252     totalprice=0;
253     char screenprotector;
254     do{
255         System.out.print("\nDo you want to purchase screen protector for RM 10? YES(Y) or NO(N)?");
256     }

```

```

257     int priceScreenprotector=0;
258     screenprotector = scan.next().charAt(0);
259     if(screenprotector=='Y' || screenprotector=='y') {
260         System.out.println("Thank you! You add on screen protector completely!");
261         totalprice += priceScreenprotector;
262         break;
263     }
264     else if(screenprotector=='N' || screenprotector=='n') {
265         System.out.println("Alright thank you.");
266         break;
267     }
268     else if(screenprotector != 'Y' || screenprotector != 'y' || screenprotector != 'N' || screenprotector != 'n'){
269         System.out.println("Please enter the correct word!");
270         }while(screenprotector != 'Y' || screenprotector != 'y' || screenprotector != 'N' || screenprotector != 'n');
271     }
272     return totalprice;
273 }
274
275 public static double powerbank(double totalprice) {
276     totalprice=0;
277     char powerbank;
278     do{
279         System.out.print("\nDo you want to purchase powerbank for RM 50? YES(Y) or NO(N)?");
280         int pricepowerbank=0;
281         powerbank = scan.next().charAt(0);
282         if(powerbank=='Y' || powerbank=='y') {
283             System.out.println("Thank you! You add on power bank completely!");
284             totalprice += pricepowerbank;
285             break;
286         }
287         else if(powerbank=='N' || powerbank=='n') {
288             System.out.println("Alright thank you.");
289             break;
290         }
291         else if(powerbank != 'Y' || powerbank != 'y' || powerbank != 'N' || powerbank != 'n'){
292             System.out.println("Please enter the correct word!");
293             }while(powerbank != 'Y' || powerbank != 'y' || powerbank != 'N' || powerbank != 'n');
294     }
295     return totalprice;
296 }
297
298 public static double phonecase(double totalprice) {
299     totalprice=0;

```

```

300     char phonecase;
301     do{
302         System.out.print("\nDo you want to purchase phone case for RM 10? YES(Y) or NO(N)?");
303         int pricephonecase=0;
304         phonecase = scan.next().charAt(0);
305         if(phonecase=='Y' || phonecase=='y') {
306             System.out.println("Thank you! You add on phone case completely!");
307             totalprice += pricephonecase;
308             break;
309         }
310         else if(phonecase=='N' || phonecase=='n') {
311             System.out.println("Alright thank you.");
312             break;
313         }
314         else if(phonecase != 'Y' || phonecase != 'y' || phonecase != 'N' || phonecase != 'n'){
315             System.out.println("Please enter the correct word!");
316             }while(phonecase != 'Y' || phonecase != 'y' || phonecase != 'N' || phonecase != 'n');
317     }
318     return totalprice;
319 }
320
321 public static double shippingFee(double totalprice) {
322     totalprice=0;
323     double shippingFee;
324     double shippingFee[] = {0,0,0};
325     do{
326         System.out.print("What is the place you live and we can delivery to you, South(S) or North(N)?");
327         shippingFee = scan.next().charAt(0);
328         if(shippingFee=='S' || shippingFee=='s') {
329             System.out.println("Thank you! We will delivery to you!");
330             totalprice += shippingFee[0];
331             break;
332         }
333         else if(shippingFee=='N' || shippingFee=='n') {
334             System.out.println("Thank you! We will delivery to you!");
335             totalprice += shippingFee[1];
336             break;
337         }
338         else if(shippingFee != 'S' || shippingFee != 's' || shippingFee != 'N' || shippingFee != 'n'){
339             System.out.println("Please enter the correct word!");
340             }while(shippingFee != 'S' || shippingFee != 's' || shippingFee != 'N' || shippingFee != 'n');
341     }
342     return totalprice;
343 }

```

```
A211 STA 1113 C - Project\src\project\MobileJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
File Internet Java MobileJava LaptopJava Satellite Java
Menubar A211 STA 1113 C - Project\src\project\MobileJava - Eclipse IDE
337     }
338     return totprice;
339   }
340   public static double total(double totalprice) {
341     double totalprices = totalprice;
342     System.out.println("Total price is : RH %2f", totalprices);
343     double discount=totalprices * 0.10;
344     System.out.println("We will give you 10% discount!!!");
345     double finalprice=totalprice-discount;
346     System.out.println("Total Price after discount : RH %2f", price);
347   }
348   public static double paymentmethod(double totalprices, String name, String IC, String phonenumer) {
349     double price = totalprices;
350     int month;
351     String IC1;
352     String payment;
353     double tendered;
354     System.out.println("\nPlease choose your payment type:");
355     System.out.println("1. Cash 2. Please enter [0] as Cash or [1] as instalment");
356     if (name.equals("")){
357       if (ic.equals("")){
358         payment = PI.charAt(0);
359         if (payment == '1' || payment == '0'){
360           System.out.print("The total amount you should pay after discount is : RH %2f", price);
361           do {
362             System.out.print("Please enter your amount tendered : RH ");
363             tendered = scon.nextInt();
364             if(tendered<price) {
365               System.out.println("Please enter an enough amount!!!");
366             }
367             else {
368               double change = tendered-price;
369               System.out.println("Thank you!!!");
370               System.out.println("This is your receipt");
371               System.out.println();
372               System.out.println("*****RECEIPT*****");
373               System.out.println("*****GREAT MOBILE SHOP*****");
374               System.out.println("*****CONTACT NUMBER: 016-3672588 *****");
375             }
376           }
377         }
378       }
379     }
380   }
381   public static void main(String[] args) {
382     System.out.println("*****CONACT NUMBER: 016-3672588 *****");
383     System.out.println("Consumer Detail");
384     System.out.println("Name : " + name);
385     System.out.println("IC : " + IC);
386     System.out.println("Phone Number : " + phonenumer);
387     System.out.print("Total Price after discount : RH %2f", price);
388     System.out.print("Amount Tendered : RH %2f", tendered);
389     do {
390       System.out.print("Change : RH %2f", change);
391     }
392     while (change > 0);
393     System.out.println();
394     System.out.println("*****THANK YOU!! PLEASE COME AGAIN*****");
395     System.out.println();
396     System.out.println();
397     else if (payment == '1' || payment == '0'){
398       double instalment;
399       double instalmentpay;
400       double instalmentpayment;
401       System.out.println("1. Instalment for 12 months' duration - 4% interest rate ");
402       System.out.println("2. Instalment for 24 months' duration - 5% interest rate ");
403       System.out.println("3. Instalment for 36 months' duration - 6% interest rate ");
404       System.out.println("Please enter [12] for 12 months' duration, [24] for 24 months' duration");
405       month = scon.nextInt();
406       if (month == 12) {
407         System.out.println("You choose 12 months' duration.");
408         instalment=price*0.04;
409         instalmentpay=price*instalment;
410         instalmentpayment=instalmentpay/12;
411         System.out.println("Instalment amount : RH %2f", instalment);
412         System.out.println("Total balance should pay : RH %2f", instalmentpay);
413         System.out.println("Total should pay monthly : RH %2f", instalmentpayment);
414       }
415       if (month == 24) {
416         System.out.println("You choose 24 months' duration.");
417         instalment=price*0.05;
418         instalmentpay=price*instalment;
419         instalmentpayment=instalmentpay/24;
420         System.out.println("Instalment amount : RH %2f", instalment);
421         System.out.println("Total balance should pay : RH %2f", instalmentpay);
422         System.out.println("Total should pay monthly : RH %2f", instalmentpayment);
423       }
424     }
425   }
426   public static double total(double totalprices) {
427     double totprice;
428     int month;
429     String IC1;
430     String payment;
431     double tendered;
432     System.out.println("\nPlease choose your payment type:");
433     System.out.println("1. Cash 2. Please enter [0] as Cash or [1] as instalment");
434     System.out.println("3. Instalment for 12 months' duration - 4% interest rate ");
435     System.out.println("4. Instalment for 24 months' duration - 5% interest rate ");
436     System.out.println("5. Instalment for 36 months' duration - 6% interest rate ");
437     System.out.println("Please enter [12] for 12 months' duration, [24] for 24 months' duration");
438     System.out.println("Please enter [36] for 36 months' duration");
439     System.out.println("Please enter [0] for cash");
440     System.out.println("Please enter [1] for instalment");
441     System.out.println("Please enter [2] for instalment");
442     System.out.println("Please enter [3] for instalment");
443     System.out.println("Please enter [4] for instalment");
444     System.out.println("Please enter [5] for instalment");
445     System.out.println("Please enter [6] for instalment");
446     System.out.println("Please enter [7] for instalment");
447     System.out.println("Please enter [8] for instalment");
448     System.out.println("Please enter [9] for instalment");
449     System.out.println("Please enter [10] for instalment");
450     System.out.println("Please enter [11] for instalment");
451     System.out.println("Please enter [12] for instalment");
452     System.out.println("Please enter [13] for instalment");
453     System.out.println("Please enter [14] for instalment");
454     System.out.println("Please enter [15] for instalment");
455     System.out.println("Please enter [16] for instalment");
456     System.out.println("Please enter [17] for instalment");
457     System.out.println("Please enter [18] for instalment");
458   }
459 }
```

```
A211 STA 1113 C - Project\src\project\MobileJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
File Internet Java MobileJava LaptopJava Satellite Java
Menubar A211 STA 1113 C - Project\src\project\MobileJava - Eclipse IDE
379   }
380   public static double total(double totalprices) {
381     double totalprices = totalprices;
382     System.out.println("Total price is : RH %2f", totalprices);
383     double discount=totalprices * 0.10;
384     System.out.println("We will give you 10% discount!!!");
385     double finalprice=totalprice-discount;
386     System.out.println("Total Price after discount : RH %2f", price);
387     System.out.println("Total instalment amount : RH %2f", instalment);
388     System.out.println("Total balance should pay : RH %2f", instalmentpay);
389     System.out.println("Total should pay monthly : RH %2f", instalmentpayment);
390     System.out.println();
391     System.out.println("*****RECEIPT*****");
392     System.out.println("*****GREAT MOBILE SHOP*****");
393     System.out.println("*****CONTACT NUMBER: 016-3672588 *****");
394   }
395   public static void main(String[] args) {
396     System.out.println("*****CONACT NUMBER: 016-3672588 *****");
397     System.out.println("Consumer Detail");
398     System.out.println("Name : " + name);
399     System.out.println("IC : " + IC);
400     System.out.println("Phone Number : " + phonenumer);
401     System.out.print("Total Price after discount : RH %2f", price);
402     System.out.print("Total instalment amount : RH %2f", instalment);
403     System.out.println();
404     System.out.print("Total balance should pay : RH %2f", instalmentpay);
405     System.out.println();
406     System.out.print("Total should pay monthly : RH %2f", instalmentpayment);
407     System.out.println();
408     System.out.println();
409     System.out.println("*****THANK YOU!! PLEASE COME AGAIN*****");
410     System.out.println();
411   }
412 }
```

```
A211 STA 1113 C - Project\src\project\MobileJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
File Internet Java MobileJava LaptopJava Satellite Java
Menubar A211 STA 1113 C - Project\src\project\MobileJava - Eclipse IDE
413   }
414   public static double total(double totalprices) {
415     double totprice;
416     int month;
417     String IC1;
418     String payment;
419     double tendered;
420     System.out.println("\nPlease choose your payment type:");
421     System.out.println("1. Cash 2. Please enter [0] as Cash or [1] as instalment");
422     System.out.println("3. Instalment for 12 months' duration - 4% interest rate ");
423     System.out.println("4. Instalment for 24 months' duration - 5% interest rate ");
424     System.out.println("5. Instalment for 36 months' duration - 6% interest rate ");
425     System.out.println("Please enter [12] for 12 months' duration");
426     System.out.println("Please enter [24] for 24 months' duration");
427     System.out.println("Please enter [36] for 36 months' duration");
428     System.out.println("Please enter [0] for cash");
429     System.out.println("Please enter [1] for instalment");
430     System.out.println("Please enter [2] for instalment");
431     System.out.println("Please enter [3] for instalment");
432     System.out.println("Please enter [4] for instalment");
433     System.out.println("Please enter [5] for instalment");
434     System.out.println("Please enter [6] for instalment");
435     System.out.println("Please enter [7] for instalment");
436     System.out.println("Please enter [8] for instalment");
437     System.out.println("Please enter [9] for instalment");
438     System.out.println("Please enter [10] for instalment");
439     System.out.println("Please enter [11] for instalment");
440     System.out.println("Please enter [12] for instalment");
441     System.out.println("Please enter [13] for instalment");
442     System.out.println("Please enter [14] for instalment");
443     System.out.println("Please enter [15] for instalment");
444     System.out.println("Please enter [16] for instalment");
445     System.out.println("Please enter [17] for instalment");
446     System.out.println("Please enter [18] for instalment");
447     System.out.println("Please enter [19] for instalment");
448     System.out.println("Please enter [20] for instalment");
449     System.out.println("Please enter [21] for instalment");
450     System.out.println("Please enter [22] for instalment");
451     System.out.println("Please enter [23] for instalment");
452     System.out.println("Please enter [24] for instalment");
453     System.out.println("Please enter [25] for instalment");
454     System.out.println("Please enter [26] for instalment");
455     System.out.println("Please enter [27] for instalment");
456     System.out.println("Please enter [28] for instalment");
457     System.out.println("Please enter [29] for instalment");
458   }
459 }
```

3.4 Laptop

```
AP11 STA 1113 C - Project\src\project\laptopjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Maven Java Internet Java Mobile Java Laptopjava X SmtJava TJava
1 package project;
2 import java.util.Scanner;
3
4 public class Laptop {
5
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         String [] laptops = {"ASUS", "APPLE", "ACER", "HP", "DELL"};
9         double salvage_valueAsus = 0;
10        double salvage_valueApple = 0;
11        double salvage_valueAcer = 0;
12        double salvage_valueHp = 0;
13        double salvage_valueDell = 0;
14        double totalPrice=0;
15        double totalPrice;
16
17        welcome();
18
19        Asus(laptops);
20        salvage_valueAsus += DepreciationAsus(salvage_value);
21
22        Apple(laptops);
23        salvage_valueApple += DepreciationApple(salvage_value);
24
25        Acer(laptops);
26        salvage_valueAcer += DepreciationAcer(salvage_value);
27
28        Hp(laptops);
29        salvage_value += DepreciationHp(salvage_value);
30
31        Dell(laptops);
32        salvage_valueDell += DepreciationDell(salvage_value);
33
34        SalvageValue();
35        salvage_values = salvage_valueAsus+salvage_valueApple+salvage_valueAcer+salvage_valueHp+salvage_valueDell;
36        salvage_values;
37
38        InstRules();
39        totalPrice = totalPrice+(totalPrice);
40
41        System.out.println();
42
43        InstRules();
```

```
AP11 STA 1113 C - Project\src\project\laptopjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Maven Java Internet Java Mobile Java Laptopjava X SmtJava TJava
43 InstRules();
44 ixit(totalprice,salvage_values);
45
46 Cashback();
47 cashback(totalprice);
48
49 ThankYou();
50
51 public static String []Asus(String []laptops) {
52     System.out.println("-----ASUS-----");
53     System.out.println("-----"+laptops[0]+"-----");
54     System.out.println("-----");
55     return laptops;
56 }
57 public static String []Apple(String []laptops) {
58     System.out.println("-----APPLE-----");
59     System.out.println("-----"+laptops[1]+"-----");
60     System.out.println("-----");
61     return laptops;
62 }
63 public static String []Acer(String []laptops) {
64     System.out.println("-----ACER-----");
65     System.out.println("-----"+laptops[2]+"-----");
66     System.out.println("-----");
67     return laptops;
68 }
69 public static String []Hp(String []laptops) {
70     System.out.println("-----HP-----");
71     System.out.println("-----"+laptops[3]+"-----");
72     System.out.println("-----");
73     return laptops;
74 }
75 public static String []Dell(String []laptops) {
76     System.out.println("-----DELL-----");
77     System.out.println("-----"+laptops[4]+"-----");
78     System.out.println("-----");
79     return laptops;
80 }
81 static void welcome() {
82     System.out.println("*****WELCOME TO THE LAPTOP DEPRECIATION SYSTEM*****");
83 }
84 static void Salvagevalue() {
```

```
AP11 STA 1113 C - Project\src\project\laptopjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Maven Java Internet Java Mobile Java Laptopjava X SmtJava TJava
85 static void Salvagevalue() {
86     System.out.println("\n-----TOTAL SALVAGE VALUE-----");
87     System.out.println("-----");
88 }
89 static void Depreciation() {
90     System.out.println("\n-----NEW LAPTOP INFORMATION-----");
91     System.out.println("-----");
92 }
93 static void InstRules() {
94     System.out.println("\n-----INSTALMENT-----");
95     System.out.println("-----");
96     System.out.println("1. MAXIMUM LIMIT OF INSTALMENT PERIOD IS 10 YEARS");
97     System.out.println("2. CUSTOMER PAY 5% INTEREST EACH YEAR");
98     System.out.println("3. CUSTOMER MUST PAY 5% DEPOTRY FOR INSTALMENT");
99     System.out.println("4. IF PRIME THEN WILL BE CHARGED IF EXCEED THE INSTALMENT PERIOD");
100 }
101 static void Cashback() {
102     System.out.println("\n-----CASHBACK-----");
103     System.out.println("1. CUSTOMERS PAY BACK IN 2 YEARS TIME WILL GET 20% CASHBACK");
104     System.out.println("2. CUSTOMERS PAY BACK IN 3 YEARS TIME WILL GET 15% CASHBACK");
105     System.out.println("3. CUSTOMERS PAY BACK IN 4 YEARS TIME WILL GET 10% CASHBACK");
106     System.out.println("4. CUSTOMERS PAY BACK IN 5 YEARS TIME WILL GET 5% CASHBACK");
107 }
108 static void Calculation() {
109     System.out.println("\n-----CALCULATION-----");
110 }
111 static void thankYou() {
112     System.out.println("-----THANK YOU FOR USING THIS SYSTEM!-----");
113 }
114 public static double DepreciationAsus(double salvage_value) {
115     Scanner scan = new Scanner (System.in);
116     int amount;
117     double purchase_price;
118     double purchase_price;
119     double year;
120     double depreciation;
121     double value;
122
123     System.out.println("Enter the initial purchase price of laptop(Rs): ");
124     purchase_price = scan.nextDouble();
```

```
② A211 STA 1113 C - ProjectName/project/laptopjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menus Java Intentions MobileJava LogCat Java Snippets Tejovi
127     purchase_price = scan.nextDouble();
128
129     System.out.print("Enter the number of years: ");
130     year = scan.nextDouble();
131
132     System.out.print("Enter depreciation percentage(%): ");
133     depreciation = scan.nextDouble();
134
135     System.out.print("Enter the amount of laptop: ");
136     amount = scan.nextInt();
137
138     value = purchase_price;
139
140     for(int i=1; i<year; i++) {
141         value = ((100-depreciation)*value)/100;
142     }
143
144     total_price = purchase_price * amount;
145     salvage_value = value * amount;
146
147     System.out.printf("Before depreciation : RM%.2f\n", total_price);
148     System.out.printf("After depreciation : RM%.2f\n", salvage_value);
149
150     return salvage_value;
151 }
152
153 public static double depreciationApp(double salvage_value) {
154     Scanner scan = new Scanner (System.in);
155     int amount;
156     double purchase_price;
157     double total_price;
158     double year;
159     double depreciation;
160     double value;
161
162     System.out.println("Enter the initial purchase price of laptop(RM): ");
163     purchase_price = scan.nextDouble();
164
165     System.out.print("Enter the number of years: ");
166     year = scan.nextDouble();
167
168     System.out.print("Enter depreciation percentage(%): ");
169     depreciation = scan.nextDouble();
170 }
```

```
② A211 STA 1113 C - ProjectName/project/laptopjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menus Java Intentions MobileJava LogCat Java Snippets Tejovi
169     System.out.println("Enter the amount of laptop: ");
170     amount = scan.nextInt();
171
172     value = purchase_price;
173
174     for(int i=1; i<year; i++) {
175         value = ((100-depreciation)*value)/100;
176     }
177     total_price = purchase_price * amount;
178     salvage_value = value * amount;
179
180     System.out.printf("Before depreciation : RM%.2f\n", total_price);
181     System.out.printf("After depreciation : RM%.2f\n", salvage_value);
182
183     return salvage_value;
184 }
185
186 public static double depreciationAcc(double salvage_value) {
187     Scanner scan = new Scanner (System.in);
188     int amount;
189     double purchase_price;
190     double total_price;
191     double year;
192     double depreciation;
193     double value;
194
195     System.out.println("Enter the initial purchase price of laptop(RM): ");
196     purchase_price = scan.nextDouble();
197
198     System.out.print("Enter the number of years: ");
199     year = scan.nextDouble();
200
201     System.out.print("Enter depreciation percentage(%): ");
202     depreciation = scan.nextDouble();
203
204     System.out.print("Enter the amount of laptop: ");
205     amount = scan.nextInt();
206
207     value = purchase_price;
208
209     for(int i=1; i<year; i++) {
210         value = ((100-depreciation)*value)/100;
211     }
212     total_price = purchase_price * amount;
213
214     System.out.printf("Before depreciation : RM%.2f\n", total_price);
215     System.out.printf("After depreciation : RM%.2f\n", salvage_value);
216
217     return salvage_value;
218 }
219
220 public static double depreciationAccm(double salvage_value) {
221     Scanner scan = new Scanner (System.in);
222     int amount;
223     double purchase_price;
224     double total_price;
225     double year;
226     double depreciation;
227     double value;
228
229     System.out.println("Enter the initial purchase price of laptop(RM): ");
230     purchase_price = scan.nextDouble();
231
232     System.out.print("Enter the number of years: ");
233     year = scan.nextDouble();
234
235     System.out.print("Enter depreciation percentage(%): ");
236     depreciation = scan.nextDouble();
237
238     System.out.print("Enter the amount of laptop: ");
239     amount = scan.nextInt();
240
241     value = purchase_price;
242
243     for(int i=1; i<year; i++) {
244         value = ((100-depreciation)*value)/100;
245     }
246     total_price = purchase_price * amount;
247     salvage_value = value * amount;
248
249     System.out.printf("Before depreciation : RM%.2f\n", total_price);
250     System.out.printf("After depreciation : RM%.2f\n", salvage_value);
251
252     return salvage_value;
253 }
```

```
② A211 STA 1113 C - ProjectName/project/laptopjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menus Java Intentions MobileJava LogCat Java Snippets Tejovi
253
254 public static double depreciationAccm(double salvage_value) {
255     Scanner scan = new Scanner (System.in);
256     int amount;
257     double purchase_price;
258     double total_price;
259     double year;
260     double depreciation;
261     double value;
262
263     System.out.println("Enter the initial purchase price of laptop(RM): ");
264     purchase_price = scan.nextDouble();
265
266     System.out.print("Enter the number of years: ");
267     year = scan.nextDouble();
268
269     System.out.print("Enter depreciation percentage(%): ");
270     depreciation = scan.nextDouble();
271
272     System.out.print("Enter the amount of laptop: ");
273     amount = scan.nextInt();
274
275     value = purchase_price;
276
277     for(int i=1; i<year; i++) {
278         value = ((100-depreciation)*value)/100;
279     }
280     total_price = purchase_price * amount;
281     salvage_value = value * amount;
282
283     System.out.printf("Before depreciation : RM%.2f\n", total_price);
284     System.out.printf("After depreciation : RM%.2f\n", salvage_value);
285
286     return salvage_value;
287 }
```

```

A211 STA 1113 C - Project/uts/project/Laptopjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menú Java D Introducción D MobileJava D Laptopjava X D SistJava D Tejido
231 int amount;
232 double purchase_price;
233 double total_price;
234 double year;
235 double depreciation;
236 double value;
237
238 System.out.println("Enter the initial purchase price of laptop(RM): ");
239 purchase_price = scan.nextDouble();
240
241 System.out.println("Enter the number of years: ");
242 year = scan.nextDouble();
243
244 System.out.println("Enter depreciation percentage(%): ");
245 depreciation = scan.nextDouble();
246
247 System.out.println("Enter the amount of laptop: ");
248 amount = scan.nextInt();
249
250 value = purchase_price;
251
252 for(int i=1; i<year; i++) {
253     value = ((100-depreciation)/100)*value;
254 }
255
256 total_price = purchase_price * amount;
257 salvage_value = value * amount;
258
259 System.out.printf("Before depreciation: RM%.2f\n", total_price);
260 System.out.printf("After depreciation : RM%.2f\n", salvage_value);
261 return salvage_value;
262 }
263 public static double w(double salvage_value,double salvage_value2,double salvage_value3,double salvage_value4,double t_salvage_value) {
264 String [] laptops = {"ASUS","APPLE","ACER","HP","DELL"};
265 System.out.printf(laptops[0] + "\tRM%.2f\n",salvage_value);
266 System.out.printf(laptops[1] + "\tRM%.2f\n",salvage_value2);
267 System.out.printf(laptops[2] + "\tRM%.2f\n",salvage_value3);
268 System.out.printf(laptops[3] + "\tRM%.2f\n",salvage_value4);
269 System.out.printf(laptops[4] + "\tRM%.2f\n",salvage_value);
270
271 System.out.println("-----");
272 System.out.printf("Total : RM%.2f\n", t_salvage_value);
273 System.out.println("-----");

```

```

A211 STA 1113 C - Project/uts/project/Laptopjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menú Java D Introducción D MobileJava D Laptopjava X D SistJava D Tejido
295 System.out.println("-----");
296 return t_salvage_value;
297 }
298 public static double newLaptop(double totalprice) {
299 Scanner scan = new Scanner(System.in);
300 int newlaptop;
301 double priceLaptop;
302
303 System.out.println("THE NUMBER OF NEW LAPTOP SOLD: ");
304 newlaptop = scan.nextInt();
305
306 System.out.println("THE PRICE OF A NEW LAPTOP: ");
307 priceLaptop = scan.nextDouble();
308
309 totalprice = newlaptop * priceLaptop;
310 System.out.printf("TOTAL PRICE OF ALL LAPTOP SOLD: RM%.2f", totalprice);
311 return totalprice;
312 }
313 public static int is(double totalprice,double salvage_values) {
314 Scanner scan = new Scanner(System.in);
315 double deposit;
316 double depositable;
317 int instalperiod;
318 double instalment;
319
320 deposit = 0.2 * totalprice;
321 System.out.print("DEPOSIT RECEIVED : RM%.2f\n",deposit);
322
323 receivable = totalprice - deposit - salvage_values;
324 System.out.printf("ACCOUNT RECEIVABLE: RM%.2f\n", receivable);
325
326 System.out.println("INSTALMENT PERIOD: ");
327 instalperiod = scan.nextInt();
328
329 instalment = receivable / instalperiod;
330 double balance = receivable;
331
332 for(int i = 1; i < instalperiod; i++) {
333     balance = balance - instalment;
334     System.out.println("Installment " + i + " : RM%.2f",instalment) + " Balance " + String.format("%RM%.2f", balance));
335 }
336

```

```

A211 STA 1113 C - Project/uts/project/Laptopjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menú Java D Introducción D MobileJava D Laptopjava X D SistJava D Tejido
337 }
338
339 double interest = 0.05 * instalment;
340 System.out.printf("Interest per year: RM%.2f\n",interest);
341 return interest;
342 }
343 public static double cashBack(double totalprice) {
344 Scanner scan = new Scanner(System.in);
345 int duration;
346 int cashback;
347 double penalty;
348 double money = 0;
349
350 System.out.println("ENTER YEARS TAKEN TO PAYBACK: ");
351 duration = scan.nextInt();
352
353 if(duration == 3) {
354     cashback = 0;
355     System.out.println("YOU FOLLOWED THE MINIMUM REQUIREMENT RULES OF CASHBACK AND PAY BACK IN TIME");
356     System.out.println("NO CASHBACK IS GIVEN");
357     System.out.println("CASHBACK: RM" + cashback + "R");
358 }
359 else if(duration == 4) {
360     cashback = 5;
361     money = 0.10 * totalprice;
362     System.out.println("YOU FOLLOWED THE 3RD RULE OF CASHBACK AND PAY BACK IN TIME");
363     System.out.println("CASHBACK IS GIVEN");
364     System.out.println("RM" + cashback + "R");
365     System.out.println("CASH OUT : RM%.2f",money);
366 }
367 else if(duration == 5) {
368     cashback = 10;
369     money = 0.10 * totalprice;
370     System.out.println("YOU FOLLOWED THE 2ND RULE OF CASHBACK AND PAY BACK IN TIME");
371     System.out.println("CASHBACK IS GIVEN");
372     System.out.println("RM" + cashback + "R");
373     System.out.println("CASH OUT : RM%.2f",money);
374 }
375 else if(duration <= 2) {
376     cashback = 15;
377     money = 0.15 * totalprice;
378     System.out.println("YOU FOLLOWED THE 1ST RULE OF CASHBACK AND PAY BACK IN TIME");
379     System.out.println("CASHBACK IS GIVEN");

```

```
351     duration = scan.nextInt();
352 
353     if(duration == 5) {
354         cashback = 0;
355         System.out.println("TIME FOLLOWED THE MINIMUM REQUIREMENT RULES OF CASHBACK AND PAY BACK IN TIME");
356         System.out.println("NO CASHBACK IS GIVEN");
357         System.out.println("CASHBACK: "+cashback+" $");
358     }
359     else if(duration == 4) {
360         cashback = 5;
361         money = 0.5 * totalprice;
362         System.out.println("TIME FOLLOWED THE 3RD RULE OF CASHBACK AND PAY BACK IN TIME");
363         System.out.println("CASHBACK: "+cashback+" $");
364         System.out.println("CASHBACK: "+money+" $");
365         System.out.print("CASH OUT : \\" + money + "\\");
366     }
367     else if(duration == 3) {
368         cashback = 10;
369         money = 0.1 * totalprice;
370         System.out.println("TIME FOLLOWED THE 2ND RULE OF CASHBACK AND PAY BACK IN TIME");
371         System.out.println("CASHBACK: "+cashback+" $");
372         System.out.println("CASHBACK: "+money+" $");
373         System.out.print("CASH OUT : \\" + money + "\\");
374     }
375     else if(duration < 3) {
376         cashback = 15;
377         money = 0.15 * totalprice;
378         System.out.println("TIME FOLLOWED THE 1ST RULE OF CASHBACK AND PAY BACK IN TIME");
379         System.out.println("CASHBACK IS GIVEN");
380         System.out.println("CASHBACK: "+cashback+" $");
381         System.out.println("CASHOUT : \\" + money + "\\");
382     }
383     else {
384         penalty = 0.01 * totalprice;
385         System.out.println("TIME VIOLATED THE 4TH RULE OF INSTALMENT");
386         System.out.println("1% EXTRA CASH WILL BE CHARGED");
387         System.out.print("INSTALMENT: " + penalty);
388     }
389     return money;
390 }
391 }
```

3.5 Satellite

```
2 package project;
3 import java.util.Scanner;
4 public class Satellit {
5 
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         int password = 0;
9         int passwords = 0;
10        String name;
11        PersonalInformation();
12        Validation();
13        Alerting();
14        TheentireSecurityRisk();
15    }
16    static Scanner scanM=new Scanner (System.in);
17    public static int PersonalInformation(int password) {
18 
19        System.out.println("*****");
20        System.out.println(" Personal Information Security System ");
21        System.out.println("*****");
22        System.out.println(" Please fill in this form. ");
23        System.out.println("*****");
24 
25        System.out.println("Name : ");
26        String name = scanM.nextLine();
27        System.out.println("Age : ");
28        String age = scanM.nextLine();
29        System.out.println("Phone number : ");
30        String phonenumber = scanM.nextLine();
31        System.out.println("Email address : ");
32        String email = scanM.nextLine();
33        System.out.println("Password : ");
34        password = scanM.nextInt();
35        System.out.println("*****");
36        System.out.println("Personal information Complete ");
37    }
38 }
```

```
43     System.out.println("Personal Information Complete ");
44     System.out.println("*****");
45     return password;
46 }
47 }
48 
49 public static int Register(int password) {
50 
51     System.out.println("*****");
52     System.out.println(" Register ");
53     System.out.println("*****");
54     System.out.println(" Please fill in this form to create an account ");
55     System.out.println("*****");
56 
57     System.out.print("Email");
58     System.out.print("Enter Email : ");
59     String email = scanM.nextLine();
60 
61     for(int i=2;i<=8;i--) {
62 
63         System.out.print("Enter your account password: ");
64         int a = scanM.nextInt();
65         if(a==password) {
66             System.out.println("Your password is correct.");
67             break;
68         } else {
69             System.out.println("Your password is wrong! You have "+i+" chance.");
70             System.out.println();
71             if(i==1) {
72                 System.out.print("Sorry, you need to wait 5 minutes to try your password again!");
73                 System.out.println();
74             }
75         }
76     }
77     System.out.println("*****");
78     System.out.println("Creating an account you agree to our   ");
79     System.out.println("Register   ");
80     System.out.println("Already have an account? Sign in   ");
81     System.out.println("*****");
82 }
83 
84     return password;
85 }
86 }
```

```
A211 STA 1111 C - Project/scr/project/USafeJava - Eclipse IDE
File Edit Source Refactor Navigate Project Run Window Help
Maven Projects Internet Explorer Mobile Java App Engine Java Sandboxed Java Tracing
169
170     String case_Name[] = {"case 1", "case 2", "case 3", "case 4", "case 5"}; //...
171     System.out.println("Enter the number of x:"); //...
172     x = scanWei.nextInt(); //...
173
174     switch(x) {
175         case 1:
176             System.out.println("Hillock your usernames and passwords :");
177             String name2s[] = scanWei.nextLine();
178             for (int i = 0; i < name2s.length; i++) {
179                 p1 = name2s[i] + " " + name2s[i] + " " + name2s[i];
180                 System.out.println(p1);
181             }
182             String y = scanWei.nextLine(); //...
183             break;
184
185         case 2:
186             System.out.println("Steal your money and open credit card and bank accounts in your name :");
187             y = scanWei.nextLine();
188             p2 = a2 / s; //Steal your money
189             System.out.println("P2= " + p2);
190             System.out.println(case_Name[1]); //...
191             break;
192
193         case 3:
194             System.out.println("Steal your credit :");
195             y = scanWei.nextLine();
196             p3 = a2 / s; //Steal your credit
197             System.out.println("P3= " + p3);
198             System.out.println(case_Name[2]); //...
199             break;
200
201         case 4:
202             System.out.println("Request new account Personal Identification Numbers (PINs) or additional credit cards :");
203             y = scanWei.nextLine();
204             p4 = a2 / s; //Request new account Personal Identification Numbers (PINs) or additional credit cards
205             System.out.println("P4= " + p4);
206             System.out.println(case_Name[3]); //...
207             break;
208
209         case 5:
210             System.out.println("Use and abuse your Social Security number :");
211             y = scanWei.nextLine();
212
213 }
```

```

A211 STA 1113 C - Project\src\project\SafeJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menubar Internet Java MobileJava LaptopJava SafeJava x Traces
213     y = s.nextInt();
214     p5 = a5 / s; //will use
215     System.out.println("P5 = " + p5);
216     System.out.println(case_Name[4]); /////
217     break;
218 }
219 case 6:
220     System.out.println("Tell your information to other parties who will use it for illicit or illegal purposes : ");
221     p6 = a6 / s; //will information
222     System.out.println("P6 = " + p6);
223     System.out.println(case_Name[5]); /////
224     break;
225 }
226 }
227
228 //Total amount
229 total1 = a1 + a2 + a3 + a4 + a5 + a6; // + total1;
230 System.out.println("Total amount threat = " + total1);
231 //Total probability
232 total2 = p1 + p2 + p3 + p4 + p5 + p6;
233 System.out.println("Total amount probability = " + total2);
234
235
236 System.out.println("*****");
237 System.out.println("          Vulnerability          ");
238 System.out.println("*****");
239
240 //PA declare as p
241 int p1;
242 int p2;
243 int p3;
244 int p4;
245 int p5;
246 int p6;
247
248 //PA declare as a
249 int a7;
250 int a8;
251 int a9;
252 int a10;
253 int a11;
254
255

```

```

A211 STA 1113 C - Project\src\project\SafeJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menubar Internet Java MobileJava LaptopJava SafeJava x Traces
256     int a10 = a9;
257     int a11 = a10 / s; //declare as s
258     int total13; int total14;
259
260 //formula P(A) = a/N/a/S
261
262 System.out.println("Broken authentication : ");
263 p1 = a7 / s1; //Broken authentication
264 System.out.println("P1 = " + p1); ///*
265
266 System.out.println("Cross-Site Scripting : ");
267 p2 = a8 / s1; //Cross Site Scripting
268 System.out.println("P2 = " + p2); ///*
269
270 System.out.println("Cross-Site Request Forgery : ");
271 p3 = a9 / s1; //Cross-Site Request Forgery
272 System.out.println("P3 = " + p3); ///*
273
274
275 System.out.println("Security Misconfiguration : ");
276 p10 = a10 / s1; //Security Misconfiguration
277 System.out.println("P10 = " + p10); ///*
278
279
280 //Total amount
281 total13 = a7 + a8 + a9 + a10;
282 System.out.println("Total amount = " + total13);
283
284 //Total probability
285 total14 = p1 + p2 + p3 + p10;
286 System.out.println("Total amount = " + total14);
287
288
289 System.out.println("*****");
290 System.out.println("          Risk          ");
291 System.out.println("*****");
292
293 int probability_occurrence;
294 int risk;
295
296 //probability of occurrence = probability threat + probability vulnerability
297 probability_occurrence = total2 + total14;
298
299 //risk = (threat x vulnerability x probability of occurrence)
300 risk = (s1 * s1 * probability_occurrence);
301
302
303 System.out.println("Risk = " + s1 + "x" + s1 + "x" + probability_occurrence);
304 System.out.println("Risk = " + risk);
305
306
307 }
308 }

```

```

A211 STA 1113 C - Project\src\project\SafeJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menubar Internet Java MobileJava LaptopJava SafeJava x Traces
263
264     System.out.println("Cross-Site Scripting : ");
265     p8 = a8 / s1; //Cross Site Scripting
266     System.out.println("P8 = " + p8); ///*
267
268 System.out.println("Cross-Site Request Forgery : ");
269     p9 = a9 / s1; //Cross-Site Request Forgery
270     System.out.println("P9 = " + p9); ///*
271
272 System.out.println("Security Misconfiguration : ");
273     p10 = a10 / s1; //Security Misconfiguration
274     System.out.println("P10 = " + p10); ///*
275
276
277 //Total amount
278 total12 = a7 + a8 + a9 + a10;
279 System.out.println("Total amount = " + total12);
280
281 //Total probability
282 total14 = p1 + p2 + p3 + p10;
283 System.out.println("Total amount = " + total14);
284
285
286 System.out.println("*****");
287 System.out.println("          Risk          ");
288 System.out.println("*****");
289
290
291 int probability_occurrence;
292 int risk;
293
294 //probability of occurrence = probability threat + probability vulnerability
295 probability_occurrence = total12 + total14;
296
297 //risk = (threat x vulnerability x probability of occurrence)
298 risk = (s1 * s1 * probability_occurrence);
299
300
301 System.out.println("Risk = " + s1 + "x" + s1 + "x" + probability_occurrence);
302 System.out.println("Risk = " + risk);
303
304
305 }
306 }

```

3.6 TV

```
A211 STA 1113 C - Project/uts/project/Tvjava - Eclipse IDE
File Edit Source Refactor Search Project Run Window Help
Menubar Internet Java MobileJava LaptopJava SatelliteJava TvJava X
1 package project;
2 import java.util.Scanner;
3
4 public class Tv {
5
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         Scanner sc = new Scanner (System.in);
9         System.out.println("Enter your package number here:- ");
10        int preference=sc.nextInt();
11        if(preference==1) {
12            primarypack();
13            info();
14            entertainmentpack();
15            System.out.println("Enter your package number here:- ");
16            int preference2=sc.nextInt();
17            if(preference2==1) {
18                primarypack();
19                info();
20                entertainmentpack();
21                System.out.println("Enter your package number here:- ");
22                int preference3=sc.nextInt();
23                if(preference3==1) {
24                    primarypack();
25                    info();
26                    entertainmentpack();
27                    System.out.println("Enter your package number here:- ");
28                    int preference4=sc.nextInt();
29                    if(preference4==1) {
30                        broadbandpack();
31                        info();
32                        broadbandpackbill();
33                        System.out.println("Enter your package number here:- ");
34                        int preference5=sc.nextInt();
35                        if(preference5==1) {
36                            primarypack();
37                            info();
38                            broadbandpack();
39                            System.out.println("Enter your package number here:- ");
40                            int preference6=sc.nextInt();
41                            if(preference6==1) {
42                                System.out.println("You entered the wrong number!");
43                                System.out.println("Please enter a correct number (1-4)");
44                            }
45                        }
46                    }
47                }
48            }
49        }
50    }
51
52    public static void system() {
53        System.out.println("WELCOME TO TV PACKAGE SYSTEM");
54    }
55    public static void astromain() {
56        // TODO Auto-generated method stub
57        String [] Packages = {"Primary Pack", "Entertainment Pack", "Broadband Pack", "Platinum Pack"};
58
59        System.out.println("Hello my dear customer! Welcome to Astro customer service.");
60        System.out.println("We will provide the information related to Astro packages based on your preference.");
61        System.out.println();
62
63        for (int i=0;i<Packages.length; i++)
64            System.out.println("Offer "+(i+1)+" * "+ Packages[i]);
65        System.out.println();
66    }
67
68    public static void primarypack() {
69        System.out.println("ASTRO PRIMARY PACK");
70        System.out.println("Price = RM 99.00\nInstallation fee = RM 99.00\n24 months subscription contract\nUp to 98+ Channels");
71        System.out.println("Astro Go accessible\nSupport HD Channel\nFree Ultrabox Decoder Set");
72        System.out.println();
73    }
74
75    public static void entertainmentpack() {
76        System.out.println("ASTRO ENTERTAINMENT PACK");
77        System.out.println("Price = RM 99.00\nInstallation fee = RM 99.00\n24 months subscription contract\nUp to 105+ Channels");
78        System.out.println("Astro Go accessible\nSupport HD Channel\nFree Ultrabox Decoder Set");
79        System.out.println();
80    }
81
82    public static void broadbandpack() {
83        System.out.println("ASTRO BROADBAND PACK");
84        System.out.println("Price = RM 195.00\nInstallation fee = RM 99.00\nSubscription contract\nUp to 98+ Channels (TV and Radio)");
85        System.out.println("Astro Go accessible\nSupport HD Channel\nFree Ultrabox Decoder Set, Modem and Router");
86        System.out.println();
87    }
88
89    public static void platinumpack() {
90        System.out.println("ASTRO PLATINUM PACK");
91        System.out.println("Price = RM 195.00\nInstallation fee = RM 99.00\n24 months subscription contract\nUp to 145+ Channels");
92        System.out.println("Astro Go accessible\nSupport UHD/4K Channel\nFree Ultrabox Decoder Set");
93        System.out.println();
94    }
95
96    public static void info() {
97        System.out.println("For our dearest customers, we have provided some discount for you in conjunction with your first time purchased with Astro such as: ");
98        System.out.println("10% (FIRST PURCHASE DISCOUNT) for every package\n15% (ON DISCOUNT) for customers who skip deposit and paid fully payment");
99        System.out.println("Here is your payment detail based on your package selected:");
100       System.out.println("For your information, we offer two payment methods along with certain discount");
101       System.out.println();
102    }
103
104    public static void primarypackbill() {
105
106        double packageprice=99.00;
107        double actualprice, discount1, discount2, deposit, price, totalprice,balance;
108        double installationbill = 99.00;
109
110        actualprice = packageprice*24 + installationbill;
111        discount1 = 0.10*packageprice;// discount for first month purchased
112        deposit = packageprice - discount1 + installationbill;// for first month
113        balance = packageprice*24;
114
115        price = (balance) + deposit;// total payment for 2 years subscription contract
116        discount2 = 0.15*price;//discount for customers who skip deposit and paid fully payment for 2 years subscription contract only
117        totalprice = price-discount2;
118
119        //Customer's payment detail
120        System.out.println("METHOD 1: DEPOSIT AND MONTHLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT");
121        System.out.println();
122        System.out.println("      - RM 99.00 package price");
123        System.out.println("      - RM 99.00 package price");
124
125    }
126
127
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```
A211 STA 1113 C - Project/uts/project/Tvjava - Eclipse IDE
File Edit Source Refactor Search Project Run Window Help
Menubar Internet Java MobileJava LaptopJava SatelliteJava TvJava X
1 package project;
2 import java.util.Scanner;
3
4 public class Tv {
5
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         Scanner sc = new Scanner (System.in);
9         System.out.println("Enter your package number here:- ");
10        int preference=sc.nextInt();
11        if(preference==1) {
12            primary();
13            info();
14            entertainment();
15            System.out.println("Enter your package number here:- ");
16            int preference2=sc.nextInt();
17            if(preference2==1) {
18                primary();
19                info();
20                entertainment();
21                System.out.println("Enter your package number here:- ");
22                int preference3=sc.nextInt();
23                if(preference3==1) {
24                    primary();
25                    info();
26                    entertainment();
27                    System.out.println("Enter your package number here:- ");
28                    int preference4=sc.nextInt();
29                    if(preference4==1) {
30                        broadband();
31                        info();
32                        broadbandbill();
33                        System.out.println("Enter your package number here:- ");
34                        int preference5=sc.nextInt();
35                        if(preference5==1) {
36                            primary();
37                            info();
38                            broadband();
39                            System.out.println("Enter your package number here:- ");
40                            int preference6=sc.nextInt();
41                            if(preference6==1) {
42                                System.out.println("You entered the wrong number!");
43                                System.out.println("Please enter a correct number (1-6)");
44                            }
45                        }
46                    }
47                }
48            }
49        }
50    }
51
52    public static void primary() {
53        System.out.println("Please enter a correct number (1-6)");
54        preference=sc.nextInt();
55        if(preference==1||preference==2||preference==3||preference==4||preference==5||preference==6);
56        System.out.println("THANK YOU FOR CHOOSING OUR SERVICE,WE HOPE THIS CAN HELP YOU MAKE YOUR OWN DECISION.");
57        System.out.println("PLEASE CALL OUR ASTRO CENTRE TO MAKE FURTHER CONFIRMATION.");
58    }
59
60
61    public static void system() {
62        System.out.println("WELCOME TO TV PACKAGE SYSTEM");
63    }
64    public static void astromain() {
65        // TODO Auto-generated method stub
66        String [] Packages = {"Primary Pack", "Entertainment Pack", "Broadband Pack", "Platinum Pack"};
67
68        System.out.println("Hello my dear customer! Welcome to Astro customer service.");
69        System.out.println("We will provide the information related to Astro packages based on your preference.");
70        System.out.println();
71
72        for (int i=0;i<Packages.length; i++)
73            System.out.println("Offer "+(i+1)+" * "+ Packages[i]);
74        System.out.println();
75    }
76
77    public static void primary() {
78        System.out.println("ASTRO PRIMARY PACK");
79        System.out.println("Price = RM 99.00\nInstallation fee = RM 99.00\n24 months subscription contract\nUp to 98+ Channels");
80        System.out.println("Astro Go accessible\nSupport HD Channel\nFree Ultrabox Decoder Set");
81        System.out.println();
82    }
83
84    public static void entertainment() {
85        System.out.println("ASTRO ENTERTAINMENT PACK");
86        System.out.println("Price = RM 99.00\nInstallation fee = RM 99.00\nSubscription contract\nUp to 105+ Channels");
87        System.out.println("Astro Go accessible\nSupport HD Channel\nFree Ultrabox Decoder Set");
88        System.out.println();
89    }
90
91    public static void broadband() {
92        System.out.println("ASTRO BROADBAND PACK");
93        System.out.println("Price = RM 195.00\nInstallation fee = RM 99.00\nSubscription contract\nUp to 98+ Channels (TV and Radio)");
94        System.out.println("Astro Go accessible\nSupport HD Channel\nFree Ultrabox Decoder Set, Modem and Router");
95        System.out.println();
96    }
97
98    public static void platinum() {
99        System.out.println("ASTRO PLATINUM PACK");
100       System.out.println("Price = RM 195.00\nInstallation fee = RM 99.00\n24 months subscription contract\nUp to 145+ Channels");
101       System.out.println("Astro Go accessible\nSupport UHD/4K Channel\nFree Ultrabox Decoder Set");
102       System.out.println();
103    }
104
105    public static void info() {
106        System.out.println("For our dearest customers, we have provided some discount for you in conjunction with your first time purchased with Astro such as: ");
107        System.out.println("10% (FIRST PURCHASE DISCOUNT) for every package\n15% (ON DISCOUNT) for customers who skip deposit and paid fully payment");
108        System.out.println("Here is your payment detail based on your package selected:");
109        System.out.println("For your information, we offer two payment methods along with certain discount");
110        System.out.println();
111    }
112
113    public static void primarybill() {
114
115        double packageprice=99.00;
116        double actualprice, discount1, deposit, price, totalprice,balance;
117        double installationbill = 99.00;
118
119        actualprice = packageprice*24 + installationbill;
120        discount1 = 0.10*packageprice;// discount for first month purchased
121        deposit = packageprice - discount1 + installationbill;// for first month
122        balance = packageprice*24;
123
124        price = (balance) + deposit;// total payment for 2 years subscription contract
125        discount2 = 0.15*price;//discount for customers who skip deposit and paid fully payment for 2 years subscription contract only
126        totalprice = price-discount2;
127
128        //Customer's payment detail
129        System.out.println("METHOD 1: DEPOSIT AND MONTHLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT");
130        System.out.println();
131        System.out.println("      - RM 99.00 package price");
132        System.out.println("      - RM 99.00 package price");
133
134    }
135
136
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```
A211 STA 1113 C - Project/uts/project/Tvjava - Eclipse IDE
File Edit Source Refactor Search Project Run Window Help
Menubar Internet Java MobileJava LaptopJava SatelliteJava TvJava X
1 package project;
2 import java.util.Scanner;
3
4 public class Tv {
5
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         Scanner sc = new Scanner (System.in);
9         System.out.println("Enter your package number here:- ");
10        int preference=sc.nextInt();
11        if(preference==1) {
12            primary();
13            info();
14            entertainment();
15            System.out.println("Enter your package number here:- ");
16            int preference2=sc.nextInt();
17            if(preference2==1) {
18                primary();
19                info();
20                entertainment();
21                System.out.println("Enter your package number here:- ");
22                int preference3=sc.nextInt();
23                if(preference3==1) {
24                    primary();
25                    info();
26                    entertainment();
27                    System.out.println("Enter your package number here:- ");
28                    int preference4=sc.nextInt();
29                    if(preference4==1) {
30                        broadband();
31                        info();
32                        broadbandbill();
33                        System.out.println("Enter your package number here:- ");
34                        int preference5=sc.nextInt();
35                        if(preference5==1) {
36                            primary();
37                            info();
38                            broadband();
39                            System.out.println("Enter your package number here:- ");
40                            int preference6=sc.nextInt();
41                            if(preference6==1) {
42                                System.out.println("You entered the wrong number!");
43                                System.out.println("Please enter a correct number (1-6)");
44                            }
45                        }
46                    }
47                }
48            }
49        }
50    }
51
52    public static void primary() {
53        System.out.println("Please enter a correct number (1-6)");
54        preference=sc.nextInt();
55        if(preference==1||preference==2||preference==3||preference==4||preference==5||preference==6);
56        System.out.println("THANK YOU FOR CHOOSING OUR SERVICE,WE HOPE THIS CAN HELP YOU MAKE YOUR OWN DECISION.");
57        System.out.println("PLEASE CALL OUR ASTRO CENTRE TO MAKE FURTHER CONFIRMATION.");
58    }
59
60
61    public static void system() {
62        System.out.println("WELCOME TO TV PACKAGE SYSTEM");
63    }
64    public static void astromain() {
65        // TODO Auto-generated method stub
66        String [] Packages = {"Primary Pack", "Entertainment Pack", "Broadband Pack", "Platinum Pack"};
67
68        System.out.println("Hello my dear customer! Welcome to Astro customer service.");
69        System.out.println("We will provide the information related to Astro packages based on your preference.");
70        System.out.println();
71
72        for (int i=0;i<Packages.length; i++)
73            System.out.println("Offer "+(i+1)+" * "+ Packages[i]);
74        System.out.println();
75    }
76
77    public static void primary() {
78        System.out.println("ASTRO PRIMARY PACK");
79        System.out.println("Price = RM 99.00\nInstallation fee = RM 99.00\n24 months subscription contract\nUp to 98+ Channels");
80        System.out.println("Astro Go accessible\nSupport HD Channel\nFree Ultrabox Decoder Set");
81        System.out.println();
82    }
83
84    public static void entertainment() {
85        System.out.println("ASTRO ENTERTAINMENT PACK");
86        System.out.println("Price = RM 99.00\nInstallation fee = RM 99.00\nSubscription contract\nUp to 105+ Channels");
87        System.out.println("Astro Go accessible\nSupport HD Channel\nFree Ultrabox Decoder Set");
88        System.out.println();
89    }
90
91    public static void broadband() {
92        System.out.println("ASTRO BROADBAND PACK");
93        System.out.println("Price = RM 195.00\nInstallation fee = RM 99.00\nSubscription contract\nUp to 98+ Channels (TV and Radio)");
94        System.out.println("Astro Go accessible\nSupport HD Channel\nFree Ultrabox Decoder Set, Modem and Router");
95        System.out.println();
96    }
97
98    public static void platinum() {
99        System.out.println("ASTRO PLATINUM PACK");
100       System.out.println("Price = RM 195.00\nInstallation fee = RM 99.00\n24 months subscription contract\nUp to 145+ Channels");
101       System.out.println("Astro Go accessible\nSupport UHD/4K Channel\nFree Ultrabox Decoder Set");
102       System.out.println();
103    }
104
105    public static void info() {
106        System.out.println("For our dearest customers, we have provided some discount for you in conjunction with your first time purchased with Astro such as: ");
107        System.out.println("10% (FIRST PURCHASE DISCOUNT) for every package\n15% (ON DISCOUNT) for customers who skip deposit and paid fully payment");
108        System.out.println("Here is your payment detail based on your package selected:");
109        System.out.println("For your information, we offer two payment methods along with certain discount");
110        System.out.println();
111    }
112
113    public static void primarybill() {
114
115        double packageprice=99.00;
116        double actualprice, discount1, deposit, price, totalprice,balance;
117        double installationbill = 99.00;
118
119        actualprice = packageprice*24 + installationbill;
120        discount1 = 0.10*packageprice;// discount for first month purchased
121        deposit = packageprice - discount1 + installationbill;// for first month
122        balance = packageprice*24;
123
124        price = (balance) + deposit;// total payment for 2 years subscription contract
125        discount2 = 0.15*price;//discount for customers who skip deposit and paid fully payment for 2 years subscription contract only
126        totalprice = price-discount2;
127
128        //Customer's payment detail
129        System.out.println("METHOD 1: DEPOSIT AND MONTHLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT");
130        System.out.println();
131        System.out.println("      - RM 99.00 package price");
132        System.out.println("      - RM 99.00 package price");
133
134    }
135
136
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```
121 AT21 STA111Z - Project1\project1\java - Eclipse IDE
122
123 Menú Java IDE Internet Java Móvil Java Desarrollador Sobre Ayuda Help
124
125 package com;
126
127 public class EntertainmentBill {
128     static double packageprice = 90.00;
129     static double actualprice = packageprice;
130     static double discount1 = 0.10 * packageprice;
131     static double discount2 = 0.10 * packageprice;
132     static double deposit = 0.00;
133     static double balance = 0.00;
134     static double totalprice = 0.00;
135
136     System.out.println();
137     System.out.println("METHOD 1: DEPOSIT AND MONTHLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT");
138     System.out.println();
139     System.out.println("PACKAGE PRICE = " + packageprice);
140     System.out.println("INSTALLATION BILL = " + packageprice);
141     System.out.println("ACTUAL PRICE = " + actualprice);
142     System.out.println("10% FIRST MONTH DISCOUNT = " + discount1);
143     System.out.println("10% MONTHLY DISCOUNT = " + discount2);
144     System.out.println("DEPOSIT = " + deposit);
145     System.out.println("BALANCE = " + balance);
146     System.out.println("MONTHLY PAYMENT = " + totalprice);
147
148     System.out.println();
149     System.out.println("METHOD 2: FULLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT");
150     System.out.println();
151     System.out.println("PACKAGE PRICE = " + packageprice);
152     System.out.println("ACTUAL PRICE = " + actualprice);
153     System.out.println("10% FIRST MONTH DISCOUNT = " + discount1);
154     System.out.println("10% MONTHLY DISCOUNT = " + discount2);
155     System.out.println("TOTAL PRICE AFTER DISCOUNT = " + totalprice);
156     System.out.println();
157
158 }
159
160 public static void entertainmentpackbill(){
161
162     double packageprice = 90.00;
163     double actualprice, discount1, discount2, deposit, price, totalprice, balance;
164     double installationbill = 90.00;
165
166     actualprice = packageprice/2 + installationbill;
167     discount1 = 0.10 * packageprice; // discount for first month purchased
168     deposit = packageprice * discount1 + installationbill; // for first month
169     balance = packageprice/2;
170
171     price = (balance) * deposit; // total payment for 2 years subscription contract
172     discount2 = 0.10 * price; // discount for customers who skip deposit and paid fully payment for 2 years subscription contract only
173     totalprice = price - discount2;
174
175     //Confirm user's request detail
176     System.out.println("METHOD 1: DEPOSIT AND MONTHLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT");
177     System.out.println();
178     System.out.println("PACKAGE PRICE = " + packageprice);
179     System.out.println("INSTALLATION BILL = " + packageprice);
180     System.out.println("ACTUAL PRICE = " + actualprice);
181     System.out.println("10% FIRST MONTH DISCOUNT = " + discount1);
182     System.out.println("TOTAL PRICE AFTER DISCOUNT = " + price);
183
184 }
```

```
A2111 ST113 C - Project/NetBeans/ToJava - Eclipse IDE
```

File Edit Source Navigator Search Project Run Window Help

Menzesia InternetBank MobileJava Laptops Java Swing Java Tytva x

```
169 System.out.println("TOTAL PRICE AFTER DISCOUNT = " + price);
170 System.out.println("ACTUAL PRICE = " + actualprice);
171 System.out.println("BALANCE = " + balance);
172 System.out.println("MONTHLY PAYMENT = " + packageprice);
173
174 System.out.println();
175 System.out.println("METHOD 2: FULLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT ");
176 System.out.println();
177 //System.out.println("ACTUAL PRICE");
178 //System.out.println("10% FIRST MONTH DISCOUNT");
179 System.out.println("15% HOW DISCOUNT");
180 System.out.println("TOTAL PRICE AFTER DISCOUNT");
181 System.out.println();
182
183 }
184
185 public static void broadbandpackagebill(){
186
187 double packageprice = 100.00;
188 double actualprice, discount1, discount2, deposit, price, totalprice, balance;
189 double installationbill = 99.00;
190
191 actualprice = packageprice/2 + installationbill;
192 discount1 = packageprice*10/100; // discount for first month purchased
193 discount2 = packageprice*15/100; // for first month
194 balance = packageprice*15/100;
195
196 price = (balance) + deposit;// total payment for 2 years subscription contract
197 discount2 = 0.15*price; //discount for customers who skip deposit and paid fully payment for 2 years subscription contract only
198 totalprice = price- discount2;
199
200 //Customer's payment detail
201 System.out.println("METHOD 1: DEPOSIT AND MONTHLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT");
202 System.out.println();
203 System.out.println("PACKAGE PRICE = " + packageprice);
204 System.out.println("INSTALLATION BILL = " + installationbill);
205 System.out.println("ACTUAL PRICE = " + actualprice);
206 System.out.println("10% FIRST MONTH DISCOUNT = " + discount1);
207 System.out.println("TOTAL PRICE AFTER DISCOUNT = " + price);
208 System.out.println("DEPOSIT = " + deposit);
209 System.out.println("BALANCE = " + balance);
210 System.out.println("MONTHLY PAYMENT = " + packageprice);
211
```

```

231     System.out.println();
232 }
233 }
234 public static void main(String[] args) {
235     double packageprice = 195.00;
236     actualprice, discount1, discount2, deposit, price, totalprice, balance;
237     double installationbill = 99.00;
238
239     actualprice = packageprice * 24 + installationbill;
240     discount1 = 0.10 * packageprice // discount for first month purchased
241     deposit = packageprice - discount1 + installationbill // for first month
242     balance = packageprice * 24;
243
244     price = (balance * 1.05); // total payment for 2 years subscription contract
245     discount2 = 0.15 * price // discount for customers who skip deposit and paid fully payment for 2 years subscription contract only
246     totalprice = price - discount2;
247
248     System.out.println("METHOD 3: DEPOSIT AND MONTHLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT");
249
250     System.out.println(" PACKAGE PRICE          = RM 99.00");
251     System.out.println(" INSTALLATION BILL      = RM 99.00");
252     System.out.println(" ACTUAL PRICE           = RM " + actualprice);
253     System.out.println(" 10% FIRST MONTH DISCOUNT = RM " + discount1);
254     System.out.println(" TOTAL PRICE AFTER DISCOUNT = RM " + price);
255     System.out.println(" DEPOSIT               = RM " + deposit);
256     System.out.println(" BALANCE                = RM " + balance);
257     System.out.println(" MONTHLY PAYMENT        = RM " + packageprice);
258
259 }
260 }

```

4.0 SAMPLE RUN

4.1 Main Menu

```

221     option = sc.nextInt();
222 }
223
224 Console > Problems Debug Shell
225
226 Please enter the following information
227 Name: Ioh
228 ID: 010026
229 Phone number: 016
230
231 This is your information!!!
232 Name : Ioh
233 ID : 010026
234 Phone number: 016
235
236 Welcome to Technology System
237 This is our menu, Please choose the services you want!
238
239 Menu
240 1. INTERNET USAGE CALCULATION SYSTEM
241 2. MOBILE ACCESSORIES SYSTEM
242 3. LAPTOP DEPRECIATION SYSTEM
243 4. DETECTING RISK SYSTEM
244 5. PACKAGE SYSTEM
245 6. Exit
246
247 Please select an Option : 2
248
249 *****WELCOME DREAM MOBILE SHOP*****
250
251 Please enter the following information
252 Name: Tish
253 ID: 010026
254 Phone number: 016
255
256 *****WELCOME DREAM MOBILE SHOP*****
257
258 We have these processor!
259 1. Snapdragon 888 RM 2000.0
260 2. Snapdragon 855 RM 800.0
261 3. Kirin 9000 RM 1200.0
262 4. Kirin 9000 RM 1200.0
263
264 Please select your mobile phone's processor: 1
265 You choose Snapdragon 888 and the price processor is RM 2000.0
266

```

```

267
268 Console > Problems Debug Shell
269
270 *****WELCOME DREAM MOBILE SHOP*****
271
272 We have these Ram!
273 1. 4 GB RM 200.0
274 2. 6 GB RM 400.0
275 3. 8 GB RM 500.0
276
277 Please select your mobile phone's ram: 1
278 You choose 4 GB and the price ram is RM 200.0
279
280 We have these storage!
281 1. 32 GB RM 300.0
282 2. 64 GB RM 400.0
283 3. 128 GB RM 500.0
284 3. 256 GB RM 600.0
285
286 Please select your mobile phone's storage: 1
287 You choose 32 GB and the price storage is RM 300.0
288
289 We have these camera!
290 1. 16 MP RM 1000.0
291 2. 32 MP RM 1200.0
292 3. 64 MP RM 1500.0
293
294 Please select your mobile phone's camera: 2
295 You choose 32 MP and the price camera is RM 1200.0
296
297 We have these battery!
298 1. 4000 mAh RM 200.0
299 2. 50000 mAh RM 200.0
300 3. 64000 mAh RM 300.0
301
302 Please select your mobile phone's battery: 1
303 You choose 4000 mAh and the price battery is RM 200.0
304

```

```

A211STIA1113 C - Project/src/project/Menjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menjava X Internetjava X Mobilejava X Laptopjava X Satellitejava X Tvjava
23
23
option = sc.nextInt();
23
Console X Problems Debug Shell
terminated: Menjava Application C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb 2022, 12:26:04 pm - 12:26:46 pm)
Do you want to purchase earphone for RM 65? YES(Y) or NO(N)
Thank you! You add on earphone completely!
Do you want to purchase screen protector for RM 10? YES(Y) or NO(N)
Please enter the correct word!
Do you want to purchase screen protector for RM 10? YES(Y) or NO(N)
Alright thank you.
Do you want to purchase powerbank for RM 50? YES(Y) or NO(N)
Thank you! You add on power bank completely!
Do you want to purchase phone case for RM 20? YES(Y) or NO(N)
Thank you! You add on phone case completely!
What is the place you live and we can delivery to you.South(S) or North(N):
Thank you! We will delivery to you!
The total price is : RM 305.00
We will give you 10% discount!!!
Discount : RM 39.50
Total Price after discount : RM 264.50
Please choose your payment types
Please Enter [C] as Cash or [I] as Instalment
1
[ 1 Instalment for 12 months' duration = 4% interest rate
  2 Instalment for 24 months' duration = 5% interest rate ]
Please enter [12] for 12 months' duration, [24] for 24 months' duration
12
You choose 24 months' duration.
total instalment amount : RM 196.75
total balance should pay : RM 4131.75
total should pay monthly : RM 172.16
Thank you!!!
This is your receipt
*****RFCTP*****  

*****DREAM MOBILE SHOP*****
*****CONTACT NUMBER: 016-362588 *****
Consumer Detail
Name : Toh
IC : 010820
Phone Number : 016
Total Price after discount : RM 264.50
total instalment amount : RM 196.75
total balance should pay : RM 4131.75
total should pay monthly : RM 172.16
*****THANK YOU!! PLEASE COME AGAIN*****  

Menu
1. INTERNET USAGE CALCULATION SYSTEM
2. MOBILE ACCESSORIES SYSTEM
3. LAPTOP DUPLICATION SYSTEM
4. DETECTING RISK SYSTEM
5. TV PACKAGE SYSTEM
6. EXIT
Please select an option : b
Thank you! See you next time!!!

```

```

A211STIA1113 C - Project/src/project/Menjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menjava X Internetjava X Mobilejava X Laptopjava X Satellitejava X Tvjava
23
23
option = sc.nextInt();
23
Console X Problems Debug Shell
terminated: Menjava Application C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb 2022, 12:26:04 pm - 12:26:46 pm)
Please enter [12] for 12 months' duration, [24] for 24 months' duration
12
You choose 24 months' duration.
Total instalment amount : RM 196.75
total balance should pay : RM 4131.75
total should pay monthly : RM 172.16
Thank you!!!
This is your receipt
*****RFCTP*****  

*****DREAM MOBILE SHOP*****
*****CONTACT NUMBER: 016-362588 *****
Consumer Detail
Name : Toh
IC : 010820
Phone Number : 016
Total Price after discount : RM 264.50
total instalment amount : RM 196.75
total balance should pay : RM 4131.75
total should pay monthly : RM 172.16
*****THANK YOU!! PLEASE COME AGAIN*****  

Menu
1. INTERNET USAGE CALCULATION SYSTEM
2. MOBILE ACCESSORIES SYSTEM
3. LAPTOP DUPLICATION SYSTEM
4. DETECTING RISK SYSTEM
5. TV PACKAGE SYSTEM
6. EXIT
Please select an option : b
Thank you! See you next time!!!

```

4.2 Internet

```

A211STIA1113 C - Project/src/project/Internetjava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Menjava X Internetjava X Mobilejava X Laptopjava X Satellitejava X Tvjava
23
23
if(social == "Y") {
23
Console X Problems Debug Shell
terminated: Internet Java Application C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb 2022, 12:27:39 pm - 12:28:37 pm)
WELCOME TO INTERNET USAGE CALCULATION SYSTEM
*****
# MAIN MENU #
*****  

*****  

Check out your daily data usage here!
enter data in mega bytes :
500
enter time in minutes :
20
enter time in hours :
0
enter time in months :
2
Your data usage per minutes is 25.00
Your data usage per hours is 250.00
Your data usage per months is 250.00
Your total data usage is 500.00
Your average amount of data usage everyday is 125.00
*****  

Here are some extra information!
You can check how much data have been used for various kind of activities.
Try to check it out!
*****  

Do you want to know the amount of data usage for uploading and downloading photo? (Y/N)?
Enter the amount of photo :
50
Your data usage to upload and download photo is 250.00
Do you want to show the amount of data usage for streaming videos? (Y/N)?
Skip  

Enter the amount of hour for high definition video :
50
Your data usage to stream high definition video is 1000000.00

```

```

AZ11 STA 1113 C - Project\src\project\Internet.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Console Problems Debug Shell
terminated: Internet [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb. 2022, 12:27:39 pm - 12:28:32 pm)
Do you want to know the amount of data usage for listening to songs? (Y/N)y
Enter the total amount of every 4 minutes for songs :
20
Your data usage to listen to songs is 130.00

Do you want to know the amount of data usage for sending emails? (Y/N)y
Enter the amount of email :
3
Your data usage to send emails is 0.10

Do you want to know the amount of data usage for web surfing? (Y/N)y
Enter the amount of hours for web surfing :
2
Your data usage for websurfing is 36.00

Do you want to know the amount of data usage for online gaming? (Y/N)y
Enter the amount of hours for online gaming :
20
Your data usage for online gaming is 400.00

Do you want to know the amount of data usage for social networking? (Y/N)n
Skip

Here are the list of data usage for the activities above.
photo: 250.00
video: 8.00
high definition video: 100000.00
song: 130.00
email: 0.10
web surfing: 36.00
online gaming: 400.00
social networking: 0.00

Try Again? [Y/N]
n

```

```

AZ11 STA 1113 C - Project\src\project\Internet.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Console Problems Debug Shell
terminated: Internet [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb. 2022, 12:27:39 pm - 12:28:32 pm)
Do you want to know the amount of data usage for listening to songs? (Y/N)y
Enter the total amount of every 4 minutes for songs :
20
Your data usage to listen to songs is 130.00

Do you want to know the amount of data usage for sending emails? (Y/N)y
Enter the amount of email :
3
Your data usage to send emails is 0.10

Do you want to know the amount of data usage for web surfing? (Y/N)y
Enter the amount of hours for web surfing :
2
Your data usage for websurfing is 36.00

Do you want to know the amount of data usage for online gaming? (Y/N)y
Enter the amount of hours for online gaming :
20
Your data usage for online gaming is 400.00

Do you want to know the amount of data usage for social networking? (Y/N)n
Skip

Here are the list of data usage for the activities above.
photo: 250.00
video: 8.00
high definition video: 100000.00
song: 130.00
email: 0.10
web surfing: 36.00
online gaming: 400.00
social networking: 0.00

Try Again? [Y/N]
n
Thankyou!

```

4.3 Mobile Phone

```

AZ11 STA 1113 C - Project\src\project\Mobile.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Console Problems Debug Shell
terminated: Mobile [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb. 2022, 12:29:14 pm - 12:29:45 pm)
*****WELCOME DREAM MOBILE SHOP*****
Please enter the following information
Name: Toh
ID: 010202
Phone number: 016
-----
*****WELCOME DREAM MOBILE SHOP*****
We have these processor!
1. Snapdragon 888 RM 2000.0
2. Snapdragon 855 RM 800.0
3. Snapdragon 730 RM 500.0
4. Kirin 9900 RM 1200.0
Please select your mobile phone's processor: 1
You choose Snapdragon 888 and the price processor is RM 2000.0

We have these Ram!
1. 4 GB RM 200.0
2. 6 GB RM 400.0
3. 8 GB RM 600.0
4. 16 GB RM 800.0
Please select your mobile phone's ram: 1
You choose 4 GB and the pricemam is RM 200.0

We have these storage!
1. 32 GB RM 300.0
2. 64 GB RM 400.0
3. 128 GB RM 600.0
4. 256 GB RM 800.0
Please select your mobile phone's storage: 1
You choose 32 GB and the pricestorage is RM 300.0

We have these camera!
1. 16 MP RM 100.0
2. 32 MP RM 200.0
3. 64 MP RM 300.0
Please select your mobile phone's camera: 2

```

```

A211 STA 1113 C - Project\src\project\Mobilejava - Eclipse IDE
file edit Source Refactor Navigate Search Project Run Window Help
Console Problems Debug Shell
terminated: Mobile Java Application C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb 2022, 12:29:14 pm - 12:29:45 pm)
Please select your mobile phone's camera: 2
You choose 32 MP and the pricecamera is RM 200.0
We have these screen technology:
1. AMOLED RM 1000.0
2. LCD RM 500.0
Please select your mobile phone's screen: 1
You choose AMOLED and the priceScreen is RM 1000.0
We have these battery:
1. 4100 mAh RM 100.0
2. 5000 mAh RM 200.0
3. 6400 mAh RM 300.0
Please select your mobile phone's battery: 3
You choose 6400 mAh and the priceBattery is RM 300.0
Do you want to purchase earphone for RM 25? YES(Y) or NO(N):
Thank you! You add on earphone completely!
Do you want to purchase screen protector for RM 10? YES(Y) or NO(N):
Alright thank you.
Do you want to purchase powerbank for RM 50? YES(Y) or NO(N):
Thank you! You add on power bank completely!
Do you want to purchase phone case for RM 10? YES(Y) or NO(N):
Alright thank you.
What is the place you live and we can delivery to you.South(S) or North(N):
Thank you! We will delivery to you!
The total price is : RM 4125.00
We will give you 10% discount!!!
Discount : RM 412.50
Total Price after discount : RM 3712.50
Please choose your payment types:
c

12:29 PM 3/2/2022

```

```

A211 STA 1113 C - Project\src\project\Mobilejava - Eclipse IDE
file edit Source Refactor Navigate Search Project Run Window Help
Console Problems Debug Shell
terminated: Mobile Java Application C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb 2022, 12:29:14 pm - 12:29:45 pm)
Alright thank you.
What is the place you live and we can delivery to you.South(S) or North(N):
Thank you! We will delivery to you!
The total price is : RM 4125.00
We will give you 10% discount!!!
Discount : RM 412.50
Total Price after discount : RM 3712.50
Please choose your payment types:
Please Enter [C] as Cash or [T] as Instavault
c

The total amount you should pay after discount is : RM 4125.00
Please enter your amount tendered : RM 5000
Thank you!!!
This is your receipt
*****RECEIPT*****
*****
*****ORIGAN MOBILE SHOP*****
*****CONTACT NUMBER: 016-3672588 *****
Consumer Detail
Name : KH
ID : 987654
Phone Number : 016

Total Price after discount : RM 4125.00
Amount tendered : RM 5000.00
Change : RM 875.00
*****THANK YOU!! PLEASE COME AGAIN*****
12:29 PM 3/2/2022

```

4.4 Laptop

```

A211 STA 1113 C - Project\src\project\Laptopjava - Eclipse IDE
file edit Source Refactor Navigate Search Project Run Window Help
Console Problems Debug Shell
terminated: Laptop Java Application C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb 2022, 12:31:52 pm - 12:33:49 pm)
*****WELCOME TO THE LAPTOP DEPRECIATION SYSTEM!!*****=*=*=*=*=*=

ASUS
Enter the initial purchase price of laptop(RM):
8000
Enter the number of years:
5
Enter depreciation percentage(%):
50
Enter the amount of laptop:
50
Before depreciation : RM250000.00
After depreciation : RM7812.50
*****APPLE*****
Enter the initial purchase price of laptop(RM):
25000
Enter the number of years:
2
Enter depreciation percentage(%):
50
Enter the amount of laptop:
20
Before depreciation : RM50000.00
After depreciation : RM49500.00
*****ACER*****
Enter the initial purchase price of laptop(RM):
55000
Enter the number of years:
3
12:33 PM 3/2/2022

```

```

A211 STA 1113 C - Project\src\project\LaptopJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Console X Problems Debug Shell
<terminated> Laptop [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb 2022, 12:31:52 pm - 12:32:49 pm)
3
Enter depreciation percentage(%):
10
Enter the amount of laptop:
20
Before depreciation: RM110000.00
After depreciation : RM88100.00
-----
Enter the initial purchase price of laptop(RM):
2000
Enter the number of years:
5
Enter depreciation percentage(%):
10
Enter the amount of laptop:
30
Before depreciation: RM120000.00
After depreciation : RM90520.00
-----
Enter the initial purchase price of laptop(RM):
1500
Enter the number of years:
3
Enter depreciation percentage(%):
10
Enter the amount of laptop:
20
Before depreciation: RM100000.00
After depreciation : RM82400.00
-----

```

```

A211 STA 1113 C - Project\src\project\LaptopJava - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Console X Problems Debug Shell
<terminated> Laptop [Java Application] C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb 2022, 12:31:52 pm - 12:32:49 pm)
-----TOTAL SALVAGE VALUE-----
ASUS : RM7112.50
APPLE : RM46500.00
ACER : RM90000.00
HP : RM101512.50
DELL : RM24380.00
Total : RM232992.50
-----
-----NEW LAPTOP INFORMATION-----
THE NUMBER OF NEW LAPTOP SOLD:
300
THE PRICE OF A NEW LAPTOP:
5000
TOTAL PRICE OF ALL LAPTOP SOLD: RM1500000.00
-----
INSTALMENT
-----
-----RULES FOR INSTALMENT-----
1. MAXIMUM LIMIT OF INSTALMENT PERIOD IS 10 YEARS
2. CUSTOMER MAY PAY 3% INTEREST EACH YEAR
3. CUSTOMER MUST PAY 20% DEPOSIT FOR INSTALMENT
4. 1% PENALTY WILL BE CHARGED IF EXCEED THE INSTALMENT PERIOD
DEPOSIT RECEIVED : RM100000.00
ACCOUNT RECEIVABLE: RM167007.50
INSTALMENT PERIOD:
10
-----INSTALMENT PAYMENT-----
Installment 1 : RM167007.50 Balance : RM150000.00
Installment 2 : RM167007.50 Balance : RM133300.00
Installment 3 : RM167007.50 Balance : RM116695.25
Installment 4 : RM167007.50 Balance : RM100084.50
Installment 5 : RM167007.50 Balance : RM83383.75
Installment 6 : RM167007.50 Balance : RM66683.00
Installment 7 : RM167007.50 Balance : RM50082.25
Installment 8 : RM167007.50 Balance : RM33381.50
Installment 9 : RM167007.50 Balance : RM16700.75
Installment 10 : RM167007.50 Balance : RM0.00
Interest per year: RM835.00
-----
-----CASHBACK-----
1. CUSTOMERS PAY BACK IN 2 YEARS TIME WILL GET 20% CASHBACK
2. CUSTOMERS PAY BACK IN 3 YEARS TIME WILL GET 15% CASHBACK
3. CUSTOMERS PAY BACK IN 4 YEARS TIME WILL GET 10% CASHBACK
4. CUSTOMERS PAY BACK IN 5 YEARS TIME WILL GET 5% CASHBACK
-----
CALCULATION
ENTER YEARS TAKEN TO PAYBACK:
4
HE FOLLOWED THE 3RD RULE OF CASHBACK AND PAY BACK IN TIME
CASHBACK IS GIVEN
CASHBACK: 5%
CASH OUT : RM250000.00
*****THANK YOU FOR USING THIS SYSTEM!*****
```

4.5 Satellite

```
A211 STA 1113 C - Project\src\project\SaetilJava - Eclipse IDE
file edit Source Refactor Navigate Search Project Run Window Help
Menubar Internet Java MobileJava LaptopJava SaetilJava TVJava
88 System.out.println(" Validation");
89 System.out.println("-----");
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A211 STA 1113 C - Project\src\project\SaetilJava - Eclipse IDE
file edit Source Refactor Navigate Search Project Run Window Help
Menubar Internet Java MobileJava LaptopJava SaetilJava TVJava
88 System.out.println(" Validation");
89 System.out.println("-----");
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A211 STA 1113 C - Project\src\project\SaetilJava - Eclipse IDE
file edit Source Refactor Navigate Search Project Run Window Help
Menubar Internet Java MobileJava LaptopJava SaetilJava TVJava
88 System.out.println(" Validation");
89 System.out.println("-----");
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4.6 TV

```

A211-STIA-1113 C - ProjectName/project/TvJava - Eclipse IDE
File Edit Source Refactor Navigate Project Run Window Help
File Menubar internetJava MobileJava LaptopJava SatelliteJava TVJava
239 System.out.println();
239
# Console × Problems Debug Shell
-Running in Java Application C:\Program Files\Java\jdk-17\bin\javaw.exe (3 Feb 2022, 12:37:19 pm - 12:37:21 pm)
WELCOME TO TV PACKAGE SYSTEM
Hello my dear customer! Welcome to Astro customer service.
I will provide the information related to Astro packages based on your preference.

Enter 1 for Primary Pack
Enter 2 for Entertainment Pack
Enter 3 for Standard Pack
Enter 4 for Platinum Pack

Enter your package number here:-

4
        ASTRO PLATINUM PACK
    *Price = RM 195.00
    *Installation fee = RM 99.00
    *24 months subscription contract
    *Up to 145+ Channels
    *Astro Go accessible
    *Support UHD/4K Channel
    *Free Ultrabox Decoder Set

My dearest customers, we have provided some discount for you in conjunction with your first time purchased with Astro such as:
-10% FIRST MONTH PURCHASE DISCOUNT for every package
-15% WM DISCOUNT for customers who skip deposit and paid fully payment
Here is your payment detail based on your package selected:
For your information, we offer two payment methods along with certain discount.

METHOD 1: DEPOSIT AND MONTHLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT

PACKAGE PRICE          = RM 195.0
INSTALLATION BILL      = RM 99.00
ACTUAL PRICE           = RM 4779.0
10% FIRST MONTH DISCOUNT = RM 19.5
TOTAL PRICE AFTER DISCOUNT = RM 4759.5
DEPOSIT                = RM 274.5
BALANCE                = RM 4485.0
MONTHLY PAYMENT        = RM 195.0

METHOD 2: FULLY PAYMENT FOR 2 YEARS SUBSCRIPTION CONTRACT

ACTUAL PRICE           = RM 4779.0
10% FIRST MONTH DISCOUNT = RM 19.5
15% WM DISCOUNT         = RM 711.925
TOTAL PRICE AFTER DISCOUNT = RM 4685.575

THANK YOU FOR CHOOSING OUR SERVICE. WE HOPE THIS CAN HELP YOU MAKE YOUR OWN DECISION.
PLEASE CALL OUR ASTRO CENTRE TO MAKE FURTHER CONFIRMATION.

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