PRACTICAL REPORT
ALGORITHM PROGRAMMING
Week 4

Group 1

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INFORMATICS MANAGEMENT STUDY PROGRAM
FACULTY OF VOCATIONAL
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2024

TASK :   **- Make a Pizza Ordering Program Using Python**

-Create a Flowchart that Simplified the Program

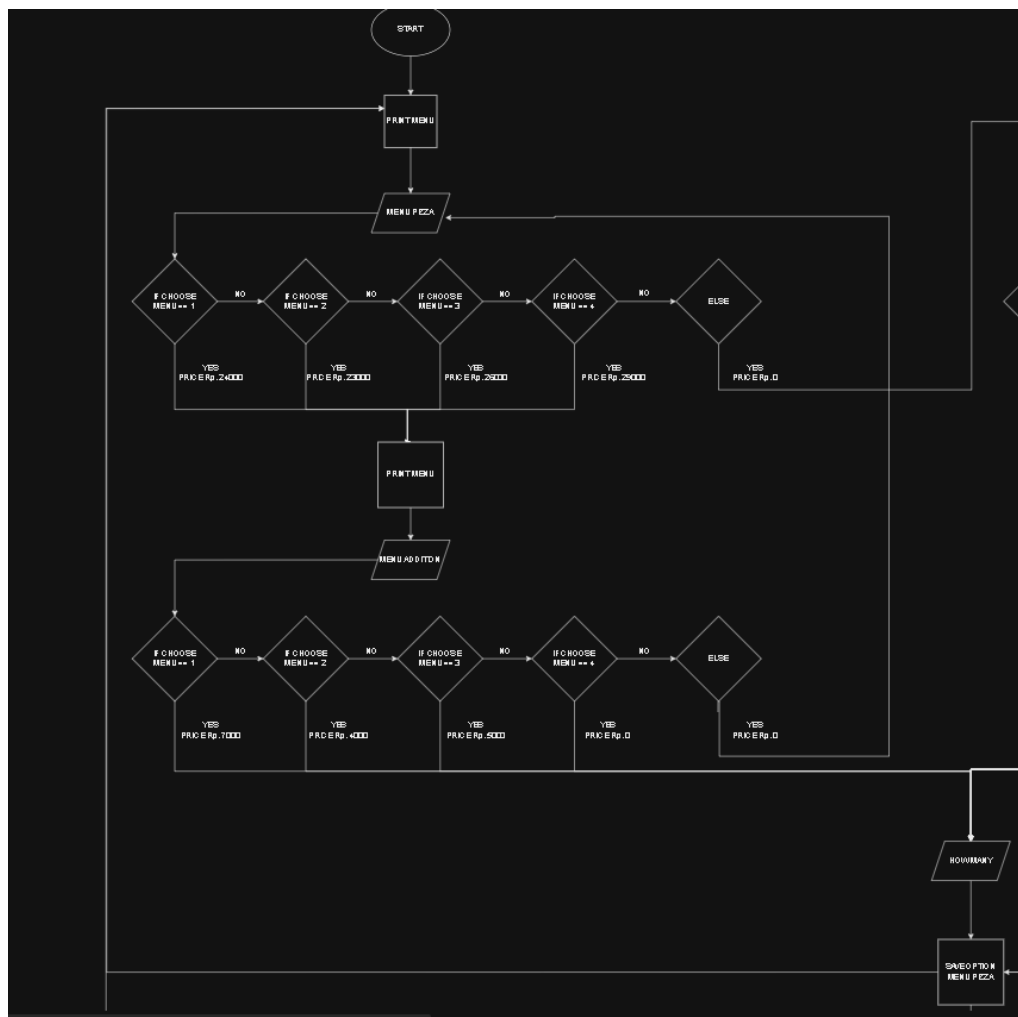**-Create a Report and an Even in Depth Explanation of the Program.**

A. FLOWCHART

The flowchart and it's function can be divided into four chunks.

- Pizza ordering
- Side ordering
- Drink ordering
- Receipt

Those chunks work in accordance to the following

    a. Pizza Ordering

1.1. Pizza menu flowchart

1. Start the program,
2. Print the pizza menu,
3. Ask for user input,
4. If input is in accordance to the menu continue to the extra topping,
   *Else continue to the next chunk of the program,
5. Print the extra topping menu,
6. Ask for extra topping input,
7. If input in accordance to the menu ask how many of those do they wish to order,
   *Else return to the previous pizza menu
8. Count the prizes of those and saved it
9. Return back to Pizza menu

b. Side Ordering
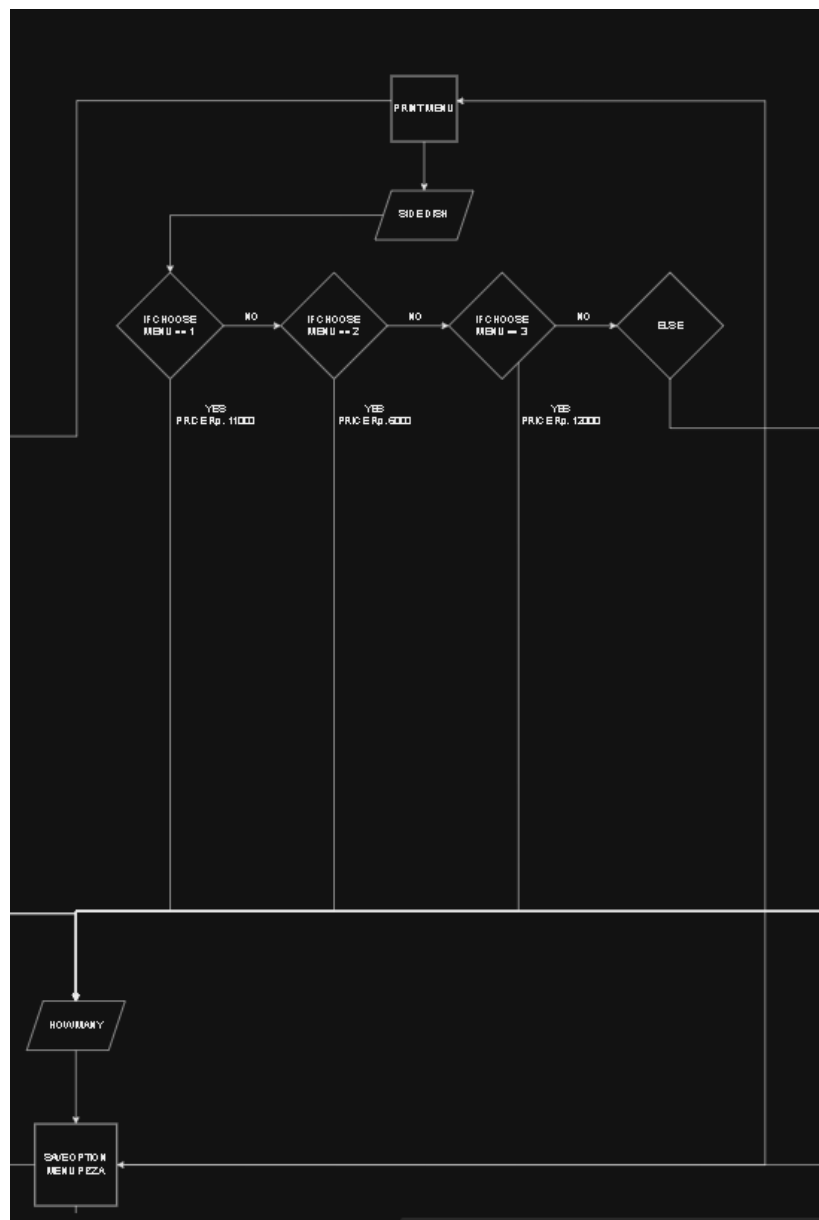
1.2. Side dish menu flowchart

1. Start by inputting unrecognize input on pizza menu,
2. Print side dish menu,
3. Ask for users input,
4. If input match the menu ask how many of the item do they wanted,
   *Else continue to drink menu,
5. Count how many of those item along with their total prize and save them,
6. Return back to side dish menu.

c. Drink ordering
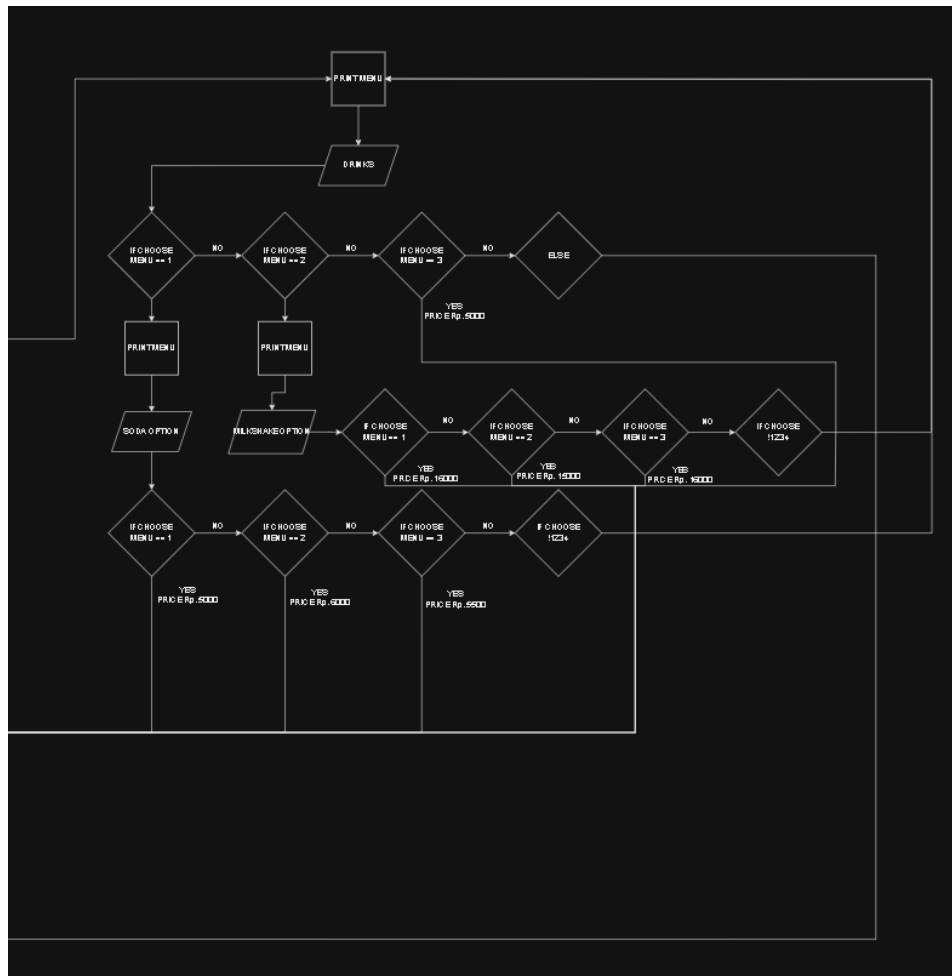
1.3. Drink menu flowchart

1. Start by putting wrong input on side dish menu,
2. Print drink menu,
3. Ask for user input,
4. If input match requirement print a sub menu in accordance to the input or skip to asking how many,
         *Else went to the receipt menu,
5. Ask how many of items do you order,
6. Count and saved the price of the ordered item,

7. Return to drink menu.

d. Receipt menu
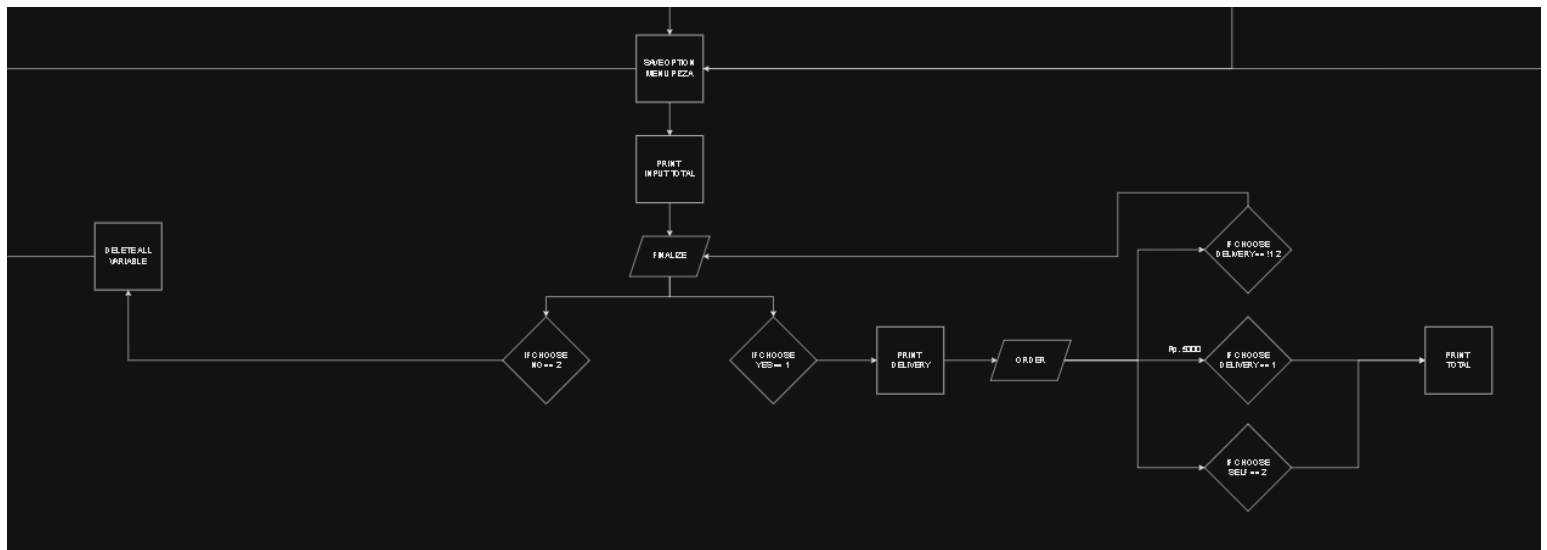
1.4. Receipt flowchart

1. Start by putting unassigned input on drink menu ,
2. Print total prize the users order,
3. Ask if they want to reorder or not,
4. If yes then delete all value and go back to pizza menu,
    *Else print if they want delivery or not,
5. Ask input if they want delivery,
6. If yes add delivery fee to total,
    *Else if don't add delivery fee,
    *Else return them to the receipt interface,
7. Print the total cost and said good bye.

B. CODE OVERVIEW

- Inside a Function

```
1    def pizza_ordering_system():
```

2.1. Pizza function

Every single bit off the code is being put inside a function. The reason for that is so that later on down the lines we able to rerun the program for our reorder system.

- Establishing Variable

```
2     pepper_count = 0
3     pepper_stuffed_count = 0
4     pepper_cheese_count = 0
5     pepper_top_count = 0
6     cheese_count = 0
7     cheese_stuffed_count = 0
8     cheese_cheese_count = 0
9     cheese_top_count = 0
10    pine_count = 0
11    pine_stuffed_count = 0
12    pine_cheese_count = 0
13    pine_top_count = 0
14    meat_count = 0
15    meat_stuffed_count = 0
16    meat_cheese_count = 0
17    meat_top_count = 0
18    bread_count = 0
19    soup_count = 0
20    french_count = 0
21    coca_count = 0
22    teb_count = 0
23    pop_count = 0
24    choco_count = 0
25    van_count = 0
26    str_count = 0
27    wat_count = 0
28    pepper_cost = 0
29    pepper_stuffed_cost = 0
30    pepper_cheese_cost = 0
31    pepper_top_cost = 0
32    cheese_cost = 0
33    cheese_stuffed_cost = 0
34    cheese_cheese_cost = 0
35    cheese_top_cost = 0
36    pine_cost = 0
37    pine_stuffed_cost = 0
38    pine_cheese_cost = 0
39    pine_top_cost = 0
40    meat_cost = 0
41    meat_stuffed_cost = 0
42    meat_cheese_cost = 0
43    meat_top_cost = 0
```

2.2. Establishing and resetting the value of variable

There's multitude of reason why this entire block from line 2 to 53 is here. Firstly it's to establish all variable inside the code. Second and somewhat more importantly it reset all variable listed above to zero which help the program to run it back for our reorder system.

- The while loop

```
56        keep_looping = 1
57
58        while keep_looping == 1:
59            print ("Which pizza would you like to order today?")
```

2.3. Establish "keep_looping" and a while loop of the menu

Inside the code exist a variable called "keep_looping", the point of this variable is to make sure the customer fully ordered everything in the current menu before continuing to the next menu. Let's use the up incoming side dish menu as examples.

```
Additional side dish?
1) Bread stick          :Rp. 11000
2) Soup                 :Rp.  6000
3) French Fries         :Rp. 12000
-) Next
Order :1

Total Ordered = 0
How many? :1

Additional side dish?
1) Bread stick          :Rp. 11000
2) Soup                 :Rp.  6000
3) French Fries         :Rp. 12000
-) Next
Order :
```

2.4. Example of menu looping back

After entering, ordering, and putting the amount want, instead of the code bleed into the next menu and keep continuing, we make it so it repeat the current menu just so if the user want another menu item or even repick menu item if the amount isn't in accordance to what they want.

```
Additional side dish?
1) Bread stick          :Rp. 11000
2) Soup                 :Rp.  6000
3) French Fries         :Rp. 12000
-) Next
Order :0

Additional drinks?
1) Soda                 :(...)
2) Milkshake            :(...)
3) Water Bottle         :Rp.  5000
-) Next
Order :
```

2.5. Example of menu continuing

The only way to escape the loop is by inputting unassigned value (in this case the input being 0) and by doing that the program will continue and run the next lines of code.

```
145        else:
146            keep_looping = 2
147
```

2.6. Changing " keep_looping " to 2 and deactivating the loop

The reason why it work is because established earlier in images 2.3 that there's a while loop with condition of it deactivating being if "keep_looping" is any other value other than 1. So by just changing that value for unassigned interger value to something other than 1 (let's say 2), it will break the loop and continue to the next lines, and when the next menu come around "keep_looping" value is reverted back just like in images 2.3 and the cycle continue. This is essentially how every menu (Pizza menu, Side dish menu, Drink menu, even the Recipt) work.

- Pizza Menu

```
56    keep_looping = 1
57
58    while keep_looping == 1:
59        print ("Which pizza would you like to order today?")
60        print("1) Pepperoni Pizza      :Rp. 24000")
61        print("2) Cheese Pizza         :Rp. 23000")
62        print("3) Hawaiian Pizza       :Rp. 26000")
63        print("4) Meat Pizza           :Rp. 29000")
64        print("-) Next")
65        pizza_order=int(input("Order :"))
66        print("")
67
```

2.7. The beginning part of pizza menu

Almost all of the begining part of the menu of code began identically with the following lines of code.

- Changing a " keep_looping " variable back to 1,
- Establishing the while loop of the menu with the lock being "keep_looping",
- Printing the entirety of the menu,
- An input where the user able to order something,
- An empty print function to make the print in command promp less cluttered,
- And continuing to next menu via inputting an unassigned value into the input function.

However each menu have their own different quirk that makes them different.

```
68        if 1 <= pizza_order <= 4 :
69            print("Any addition?")
70            print("1) Stuffed Crust       :+ Rp.  7000")
71            print("2) Extra Cheese        :+ Rp.  4000")
72            print("3) Extra Topping       :+ Rp.  5000")
73            print("4) No Addition         :+ Rp.     0")
74            print("-) Return")
75            pizza_topping = int(input("Order :"))
76            print("")
77
```

2.8. The topping menu directly under the pizza menu

With the unique factor for pizza menu is it contains a secondary menu that if you pick an assigned value will lead you to be asked as to the additional topping you want on top of your pizza. After this there are two things that could happened.

```
78          if pizza_order == 1 and pizza_topping == 1:
79              print(f"Total Ordered = {pepper_stuffed_count} ")
80              pepper_stuffed_count = int(input("How many? :"))
81              print("")
82          elif pizza_order == 1 and pizza_topping == 2:
83              print(f"Total Ordered = {pepper_cheese_count} ")
84              pepper_cheese_count = int(input("How many? :"))
85              print("")
86          elif pizza_order == 1 and pizza_topping == 3:
87              print(f"Total Ordered = {pepper_top_count} ")
88              pepper_top_count = int(input("How many? :"))
89              print("")
90          elif pizza_order == 1 and pizza_topping == 4:
91              print(f"Total Ordered = {pepper_count} ")
92              pepper_count = int(input("How many? :"))
93              print("")
94          elif pizza_order == 2 and pizza_topping == 1:
95              print(f"Total Ordered = {cheese_stuffed_count} ")
96              cheese_stuffed_count = int(input("How many? :"))
97              print("")
```

2.9. Second input for the amount of the ordered combination

Either you will be ask how many of the combination of pizza and the extra addition do you want to order using another input function.

```
        else:
            keep_looping = 1
```

2.10. Reestablishment of " keep_looping "

Or users will return back to the main pizza menu since the variable "keep_looping" still at 1, and without that being changed into something else it will return you back to the main pizza menu.

- Sidedish Menu

```
147         keep_looping = 1
148
149         while keep_looping == 1:
150             print("Additional side dish?")
151             print("1) Bread stick          :Rp. 11000")
152             print("2) Soup                 :Rp.  6000")
153             print("3) French Fries         :Rp. 12000")
154             print("-) Next")
155             side_order=int(input("Order :"))
156             print("")
157
```

2.11. The "begining" of sidedish menu

After you input an unassigned value on the pizza menu you will continue to the sidedish menu. The uniqueness of this menu is that there's nothing unique.

```
149        while keep_looping == 1:
150            print("Additional side dish?")
151            print("1) Bread stick          :Rp. 11000")
152            print("2) Soup                  :Rp.  6000")
153            print("3) French Fries          :Rp. 12000")
154            print("-) Next")
155            side_order=int(input("Order :"))
156            print("")
157
158            if side_order == 1:
159                print(f"Total Ordered = {bread_count} ")
160                bread_count = int(input("How many? :"))
161                print("")
162            elif side_order == 2:
163                print(f"Total Ordered = {soup_count} ")
164                soup_count = int(input("How many? :"))
165                print("")
166            elif side_order == 3:
167                print(f"Total Ordered = {french_count} ")
168                french_count = int(input("How many? :"))
169                print("")
170            else:
171                keep_looping = 2
172
```

2.12. The entirety of sidedish menu code

After inputting an assigned value you will be asked how many of the items you want using an input function and after that back to the menu you go. There's nothing inherently spesial about this outside of maybe the while loop that in this context isn't even spesial. Which after inputting unassingned value will lead you to the next menu.

- Drink Menu

```
173        keep_looping = 1
174
175        while keep_looping == 1:
176            print("Additional drinks?")
177            print("1) Soda                  :(...)")
178            print("2) Milkshake             :(...)")
179            print("3) Water Bottle          :Rp.  5000")
180            print("-) Next")
181            drink_order=int(input("Order :"))
182            print("")
183
```

2.13. Beggining part of the drink menu

After inputting unassigned value on the sidedish menu will lead you to the drink menu.

```
184        if drink_order == 1:
185            print("Which soda do you want?")
186            print("1) Coca-Cola              :Rp.  5000")
187            print("2) Teb                    :Rp.  6000")
188            print("3) Pepsi                  :Rp.  5500")
189            print("-) Return")
190            soda_order=int(input("Order :"))
191            print("")
192
193            if soda_order == 1:
194                print(f"Total Ordered = {coca_count} ")
195                coca_count = int(input("How many? :"))
196                print("")
197            elif soda_order == 2:
198                print(f"Total Ordered = {teb_count} ")
199                teb_count = int(input("How many? :"))
200                print("")
201            elif soda_order == 3:
202                print(f"Total Ordered = {pop_count} ")
203                pop_count = int(input("How many? :"))
204                print("")
205            else:
206                keep_looping = 1
207
208        elif drink_order == 2:
209            print("Which milkshake do you want?")
210            print("1) Chocolate Milkshake     :Rp. 16000")
211            print("2) Vanilla Milkshake       :Rp. 15000")
212            print("3) Strawberry Milkshake    :Rp. 16000")
213            print("-) Return")
214            milkshake_order=int(input("Order :"))
215            print("")
216
217            if milkshake_order == 1:
218                print(f"Total Ordered = {choco_count} ")
219                choco_count = int(input("How many? :"))
220                print("")
221            elif milkshake_order == 2:
222                print(f"Total Ordered = {van_count} ")
223                van_count = int(input("How many? :"))
224                print("")
225            elif milkshake_order == 3:
226                print(f"Total Ordered = {str_count} ")
227                str_count = int(input("How many? :"))
228                print("")
229            else:
230                keep_looping = 1
231
```

2.14. The two submenu code inside the drink menu

After inputting value that assigned with the "(...)" menu it will put you through a submenu just like the pizza menu. However unlike the pizza menu where the submenu is universal and every single one of the assigned input lead you there, in drink menu each one of the value that was assigned with a submenu lead you to their own submenu, each with their own unique menu and option. After which you can pick how many drinks inside the submenu using the assigned value on their menu or return to the main drink menu by inputting unassigned value to the input function.

```
232        elif drink_order == 3:
233            print(f"Total Ordered = {wat_count} ")
234            wat_count = int(input("How many? :"))
235            print("")
236
```

2.15. The other drink "menu" without a submenu

However if you input an assigned value with no submenu in the main drink menu it will lead you to the usual how many question and loop back to the main drink menu and will continue until you input unassigned value in which case you will be lead into the next menu.

- Receipt

```
240         keep_looping = 1
241
242         while keep_looping == 1:
243             print("Here's your order :")
244             if pepper_count > 0:
245                 pepper_cost = 24000 * pepper_count
246                 print(f"Pepperoni Pizza                 ({pepper_count}) :Rp. {pepper_cost}")
247             if pepper_stuffed_count > 0:
248                 pepper_stuffed_cost = (24000 + 7000) * pepper_stuffed_count
249                 print(f"Pepperoni Pizza [Stuffed Crust] ({pepper_stuffed_count}) :Rp. {pepper_stuffed_cost}")
250             if pepper_cheese_count > 0:
251                 pepper_cheese_cost = (24000 + 4000) * pepper_cheese_count
252                 print(f"Pepperoni Pizza [Extra Cheese]  ({pepper_cheese_count}) :Rp. {pepper_cheese_cost}")
253             if pepper_top_count > 0:
254                 pepper_top_cost = (24000 + 4000) * pepper_top_count
255                 print(f"Pepperoni Pizza [Extra Topping] ({pepper_top_count}) :Rp. {pepper_top_cost}")
256
257             if cheese_count > 0:
258                 cheese_cost = 23000 * cheese_count
259                 print(f"Cheese Pizza                    ({cheese_count}) :Rp. {cheese_cost}")
260             if cheese_stuffed_count > 0:
```

==

```
322             if str_count > 0:
323                 str_cost = 16000 * str_count
324                 print(f"Strawberry Milkshake            ({str_count}) :Rp. {str_cost}")
325
326             if wat_count > 0:
327                 wat_cost = 5500 * wat_count
328                 print(f"Water Bottle                    ({wat_count}) :Rp. {wat_cost}")
329
330             print("_____+")
331             total_cost = pepper_cost + pepper_stuffed_cost + pepper_cheese_cost + pepper_top_cost + cheese_cost + cheese_stu
332             print(f"Total                 :Rp. {total_cost}")
333             print("")
334             print("Would this be your order?")
335             print("1) Yes, that will be all.")
336             print("2) I want to change my order.")
337             finalize_order = int(input("Finalize :"))
338             print("")
339
```

2.16. The begining part of receipt

After inputting unassigned value in the drink menu users will be lead here to the receipt. There's a lot going on, so here's a tldr of everything from top to bottom.

- Establishing "keep_looping" to 1 for later purpose,
- Establishing also the while loop for again later purpose,
- Checking the order being made and calculate the price of them,
- Printing them to show the amount of individual item being bought along with the price,
- A "_" train to seperate the menu order from the rest of the print,
- Calculation of the total item bought,
- Printing the total cost of the order,

- Printing the message if users want to reorder or not,
- Asking user input of users about the discussed topic,
- Blank print so that it look neat.

After all of that you will be given another option whether you want to reorder or finalize the buy.

```
340        if finalize_order == 1:
341            print(f"Would you like delivery?")
342            print("1) Delivery                          :+ Rp.  5000")
343            print("2) Self Pick Up                      :+ Rp.     0")
344            print("-) Return")
345            delivery_order = int(input("Order :"))
346            print("")
347
```

2.17. Submenu after inputting assigned value "1" in receipt for delivery option

If you input to finalize your order you will be asked for delivery option.

```
348        if delivery_order == 1:
349            print("With delivery your total will be")
350            total_cost = total_cost + 5000
351            print(f"Rp. {total_cost}")
352            print("Thank you for your purchase and have a great meal and a 'pon' day.")
353            exit()
354
```

2.18. An exit command for the delivery option

If you pressed assigned value "1" you will be greeted with additional cost to the total cost and more importantly an exit from the "pizza_ordering_system" function we're in.

```
355        elif delivery_order == 2:
356            print("With self pick up your total will be")
357            print(f"Rp. {total_cost}")
358            print("We'll wait at location, thank you, and have a 'pon' day.")
359            exit()
360
```

2.19. An exit command for self pickup option

Else if you pressed the second assigned value you will just be given your regular total with no addition.

And if you pick an unassigned value because of the while loop being established earlier the receipt will be reprinted and you will be allowed to pick the second option outside of finalize. This is also what happened if you pick unassigned value on the "finalize_order" input.

```
361        elif finalize_order == 2:
362            print("Alright please re-order from the beginning.")
363            print("")
364
365            pizza_ordering_system()
366
```

2.20. The reorder system.

If you pick the second assigned value you will go to the reorder system, which is putting you back all the way to the pizza menu with all your order resetted. This is the reason why the program is inside a function, so that it will be easier to loop it from the very end to the very beggining.

- Starting the Function

```
374    print("Welcome to Mama Pon Online Services, where happiness and fun transverse through cyber space.")
375
376    pizza_ordering_system()
```

2.21. The call for the function

In the very bottom after everything has been defined and clean out just remain the function call, along with the greeting print for the first time running up the program. Nothing more can be said.

C. CONCLUSION

For the most part the code has been optimized as much as for it still make sense as a part of "if and else" lecture. There's definitely some place to optimize it, like the pizza order having to many variable maybe could be shortened using true or false, and a different way to rerun the code outside of putting everything inside a function and rerunning the function, etc. However for just a couple week of lecture this code is more than satisfied our curious need for exploring the world of coding and we will wait for the next step for an even optimized code and program.

D. RAW CODES

```python
def pizza_ordering_system():
    pepper_count = 0
    pepper_stuffed_count = 0
    pepper_cheese_count = 0
    pepper_top_count = 0
    cheese_count = 0
    cheese_stuffed_count = 0
    cheese_cheese_count = 0
    cheese_top_count = 0
    pine_count = 0
    pine_stuffed_count = 0
    pine_cheese_count = 0
    pine_top_count = 0
    meat_count = 0
    meat_stuffed_count = 0
    meat_cheese_count = 0
    meat_top_count = 0
    bread_count = 0
    soup_count = 0
    french_count = 0
    coca_count = 0
    teb_count = 0
    pop_count = 0
    choco_count = 0
    van_count = 0
    str_count = 0
    wat_count = 0
    pepper_cost = 0
    pepper_stuffed_cost = 0
    pepper_cheese_cost = 0
    pepper_top_cost = 0
    cheese_cost = 0
    cheese_stuffed_cost = 0
    cheese_cheese_cost = 0
    cheese_top_cost = 0
    pine_cost = 0
    pine_stuffed_cost = 0
    pine_cheese_cost = 0
    pine_top_cost = 0
    meat_cost = 0
    meat_stuffed_cost = 0
    meat_cheese_cost = 0
    meat_top_cost = 0
```

```python
        bread_cost = 0
        soup_cost = 0
        french_cost = 0
        coca_cost = 0
        teb_cost = 0
        pop_cost = 0
        choco_cost = 0
        van_cost = 0
        str_cost = 0
        wat_cost = 0


        keep_looping = 1

        while keep_looping == 1:
            print ("Which pizza would you like to order today?")
            print("1) Pepperoni Pizza       :Rp. 24000")
            print("2) Cheese Pizza          :Rp. 23000")
            print("3) Hawaiian Pizza        :Rp. 26000")
            print("4) Meat Pizza            :Rp. 29000")
            print("-) Next")
            pizza_order=int(input("Order :"))
            print("")

            if 1 <= pizza_order <= 4 :
                print("Any addition?")
                print("1) Stuffed Crust        :+ Rp.  7000")
                print("2) Extra Cheese         :+ Rp.  4000")
                print("3) Extra Topping        :+ Rp.  5000")
                print("4) No Addition          :+ Rp.     0")
                print("-) Return")
                pizza_topping = int(input("Order :"))
                print("")

                if pizza_order == 1 and pizza_topping == 1:
                    print(f"Total Ordered = {pepper_stuffed_count} ")
                    pepper_stuffed_count = int(input("How many? :"))
                    print("")
                elif pizza_order == 1 and pizza_topping == 2:
                    print(f"Total Ordered = {pepper_cheese_count} ")
                    pepper_cheese_count = int(input("How many? :"))
                    print("")
```

```python
        elif pizza_order == 1 and pizza_topping == 3:
            print(f"Total Ordered = {pepper_top_count} ")
            pepper_top_count = int(input("How many? :"))
            print("")
        elif pizza_order == 1 and pizza_topping == 4:
            print(f"Total Ordered = {pepper_count} ")
            pepper_count = int(input("How many? :"))
            print("")
        elif pizza_order == 2 and pizza_topping == 1:
            print(f"Total Ordered = {cheese_stuffed_count} ")
            cheese_stuffed_count = int(input("How many? :"))
            print("")
        elif pizza_order == 2 and pizza_topping == 2:
            print(f"Total Ordered = {cheese_cheese_count} ")
            cheese_cheese_count = int(input("How many? :"))
            print("")
        elif pizza_order == 2 and pizza_topping == 3:
            print(f"Total Ordered = {cheese_top_count} ")
            cheese_top_count = int(input("How many? :"))
            print("")
        elif pizza_order == 2 and pizza_topping == 4:
            print(f"Total Ordered = {cheese_count} ")
            cheese_count = int(input("How many? :"))
            print("")
        elif pizza_order == 3 and pizza_topping == 1:
            print(f"Total Ordered = {pine_stuffed_count} ")
            pine_stuffed_count = int(input("How many? :"))
            print("")
        elif pizza_order == 3 and pizza_topping == 2:
            print(f"Total Ordered = {pine_cheese_count} ")
            pine_cheese_count = int(input("How many? :"))
            print("")
        elif pizza_order == 3 and pizza_topping == 3:
            print(f"Total Ordered = {pine_top_count} ")
            pine_top_count = int(input("How many? :"))
            print("")
        elif pizza_order == 3 and pizza_topping == 4:
            print(f"Total Ordered = {pine_count} ")
            pine_count = int(input("How many? :"))
            print("")
        elif pizza_order == 4 and pizza_topping == 1:
            print(f"Total Ordered = {meat_stuffed_count} ")
```

```python
                    meat_stuffed_count = int(input("How many? :"))
                    print("")
            elif pizza_order == 4 and pizza_topping == 2:
                    print(f"Total Ordered = {meat_cheese_count} ")
                    meat_cheese_count = int(input("How many? :"))
                    print("")
            elif pizza_order == 4 and pizza_topping == 3:
                    print(f"Total Ordered = {meat_top_count} ")
                    meat_top_count = int(input("How many? :"))
                    print("")
            elif pizza_order == 4 and  pizza_topping == 4:
                    print(f"Total Ordered = {meat_count} ")
                    meat_count = int(input("How many? :"))
                    print("")
            else:
                    keep_looping = 1
        else:
                keep_looping = 2

    keep_looping = 1

    while keep_looping == 1:
        print("Additional side dish?")
        print("1) Bread stick            :Rp. 11000")
        print("2) Soup                   :Rp.  6000")
        print("3) French Fries           :Rp. 12000")
        print("-) Next")
        side_order=int(input("Order :"))
        print("")

        if side_order == 1:
            print(f"Total Ordered = {bread_count} ")
            bread_count = int(input("How many? :"))
            print("")
        elif side_order == 2:
            print(f"Total Ordered = {soup_count} ")
            soup_count = int(input("How many? :"))
            print("")
        elif side_order == 3:
            print(f"Total Ordered = {french_count} ")
            french_count = int(input("How many? :"))
            print("")
```

```python
        else:
            keep_looping = 2

    keep_looping = 1

    while keep_looping == 1:
        print("Additional drinks?")
        print("1) Soda                    :(...)")
        print("2) Milkshake               :(...)")
        print("3) Water Bottle           :Rp.  5000")
        print("-) Next")
        drink_order=int(input("Order :"))
        print("")

        if drink_order == 1:
            print("Which soda do you want?")
            print("1) Coca-Cola              :Rp.  5000")
            print("2) Teb                    :Rp.  6000")
            print("3) Pepsi                  :Rp.  5500")
            print("-) Return")
            soda_order=int(input("Order :"))
            print("")

            if soda_order == 1:
                print(f"Total Ordered = {coca_count} ")
                coca_count = int(input("How many? :"))
                print("")
            elif soda_order == 2:
                print(f"Total Ordered = {teb_count} ")
                teb_count = int(input("How many? :"))
                print("")
            elif soda_order == 3:
                print(f"Total Ordered = {pop_count} ")
                pop_count = int(input("How many? :"))
                print("")
            else:
                keep_looping = 1

        elif drink_order == 2:
            print("Which milkshake do you want?")
            print("1) Chocolate Milkshake    :Rp. 16000")
            print("2) Vanilla Milkshake      :Rp. 15000")
```

```python
                print("3) Strawberry Milkshake    :Rp. 16000")
                print("-) Return")
                milkshake_order=int(input("Order :"))
                print("")

                if milkshake_order == 1:
                    print(f"Total Ordered = {choco_count} ")
                    choco_count = int(input("How many? :"))
                    print("")
                elif milkshake_order == 2:
                    print(f"Total Ordered = {van_count} ")
                    van_count = int(input("How many? :"))
                    print("")
                elif milkshake_order == 3:
                    print(f"Total Ordered = {str_count} ")
                    str_count = int(input("How many? :"))
                    print("")
                else:
                    keep_looping = 1

            elif drink_order == 3:
                print(f"Total Ordered = {wat_count} ")
                wat_count = int(input("How many? :"))
                print("")

            else:
                keep_looping = 2

        keep_looping = 1

        while keep_looping == 1:
            print("Here's your order :")
            if pepper_count > 0:
                pepper_cost = 24000 * pepper_count
                print(f"Pepperoni Pizza                  ({pepper_count}) :Rp. {pepper_cost}")
            if pepper_stuffed_count > 0:
                pepper_stuffed_cost = (24000 + 7000) * pepper_stuffed_count
                print(f"Pepperoni Pizza [Stuffed Crust] ({pepper_stuffed_count}) :Rp. {pepper_stuffed_cost}")
            if pepper_cheese_count > 0:
                pepper_cheese_cost = (24000 + 4000) * pepper_cheese_count
                print(f"Pepperoni Pizza [Extra Cheese]  ({pepper_cheese_count}) :Rp. {pepper_cheese_cost}")
            if pepper_top_count > 0:
```

```python
        pepper_top_cost = (24000 + 4000) * pepper_top_count
        print(f"Pepperoni Pizza [Extra Topping] ({pepper_top_count}) :Rp. {pepper_top_cost}")

    if cheese_count > 0:
        cheese_cost = 23000 * cheese_count
        print(f"Cheese Pizza                     ({cheese_count}) :Rp. {cheese_cost}")
    if cheese_stuffed_count > 0:
        cheese_stuffed_cost = (23000 + 7000) * cheese_stuffed_count
        print(f"Cheese Pizza [Stuffed Crust]    ({cheese_stuffed_count}) :Rp. {cheese_stuffed_cost}")
    if cheese_cheese_count > 0:
        cheese_cheese_cost = (23000 + 4000) * cheese_cheese_count
        print(f"Cheese Pizza                     ({cheese_cheese_count}) :Rp. {cheese_cheese_cost}")
    if cheese_top_count > 0:
        cheese_top_cost = (23000 + 5000) * cheese_top_count
        print(f"Cheese Pizza [Extra Topping]    ({cheese_top_count}) :Rp. {cheese_top_cost}")

    if pine_count > 0:
        pine_cost = 26000 * pine_count
        print(f"Hawaiian Pizza                   ({pine_count}) :Rp. {pine_cost}")
    if pine_stuffed_count > 0:
        pine_stuffed_cost = (26000 + 7000) * pine_stuffed_count
        print(f"Hawaiian Pizza [Stuffed Crust] ({pine_stuffed_count}) :Rp. {pine_stuffed_cost}")
    if pine_cheese_count > 0:
        pine_cheese_cost = (26000 + 4000) * pine_cheese_count
        print(f"Hawaiian Pizza [Extra Cheese]   ({pine_cheese_count}) :Rp. {pine_cheese_cost}")
    if pine_top_count > 0:
        pine_top_cost = (26000 + 5000) * pine_top_count
        print(f"Hawaiian Pizza [Extra Topping]  ({pine_top_count}) :Rp. {pine_top_cost}")

    if meat_count > 0:
        meat_cost = 24000 * meat_count
        print(f"Meat Pizza                       ({meat_count}) :Rp. {meat_cost}")
    if meat_stuffed_count > 0:
        meat_stuffed_cost = (29000 + 7000) * meat_stuffed_count
        print(f"Meat Pizza [Stuffed Crust]      ({meat_stuffed_count}) :Rp. {meat_stuffed_cost}")
    if meat_cheese_count > 0:
        meat_cheese_cost = (29000 + 4000) * meat_cheese_count + 4000
        print(f"Meat Pizza [Extra Cheese]       ({meat_cheese_count}) :Rp. {meat_cheese_cost}")
    if meat_top_count > 0:
        meat_top_cost = (29000 + 5000) * meat_top_count
        print(f"Meat Pizza [Extra Topping]      ({meat_top_count}) :Rp. {meat_top_cost}")
```

```python
            if bread_count > 0:
                bread_cost = 11000 * bread_count
                print(f"Bread Stick                       ({bread_count}) :Rp. {bread_cost}")
            if soup_count > 0:
                soup_cost = 6000 * soup_count
                print(f"Soup                              ({soup_count}) :Rp. {soup_cost}")
            if french_count > 0:
                french_cost = 12000 * french_count
                print(f"French Fries                      ({french_count}) :Rp. {french_cost}")

            if coca_count > 0:
                coca_cost = 5000 * coca_count
                print(f"Coca-Cola                         ({coca_count}) :Rp. {coca_cost}")
            if teb_count > 0:
                teb_cost = 6000 * teb_count
                print(f"Teb                               ({teb_count}) :Rp. {teb_cost}")
            if pop_count > 0:
                pop_cost = 5500 * pop_count
                print(f"Pepsi                             ({pop_count}) :Rp. {pop_cost}")

            if choco_count > 0:
                choco_cost = 16000 * choco_count
                print(f"Chocolate Milkshake               ({choco_count}) :Rp. {choco_cost}")
            if van_count > 0:
                van_cost = 15000 * van_count
                print(f"Vanilla Milkshake                 ({van_count}) :Rp. {van_cost}")
            if str_count > 0:
                str_cost = 16000 * str_count
                print(f"Strawberry Milkshake              ({str_count}) :Rp. {str_cost}")

            if wat_count > 0:
                wat_cost = 5500 * wat_count
                print(f"Water Bottle                      ({wat_count}) :Rp. {wat_cost}")

            print("_____+")
            total_cost = pepper_cost + pepper_stuffed_cost + pepper_cheese_cost + pepper_top_cost + cheese_cost + cheese_stu
            print(f"Total                 :Rp. {total_cost}")
            print("")
            print("Would this be your order?")
            print("1) Yes, that will be all.")
            print("2) I want to change my order.")
            finalize_order = int(input("Finalize :"))
```

```python
            print("")

        if finalize_order == 1:
            print(f"Would you like delivery?")
            print("1) Delivery                                    :+ Rp.  5000")
            print("2) Self Pick Up                                :+ Rp.     0")
            print("-) Return")
            delivery_order = int(input("Order :"))
            print("")

            if delivery_order == 1:
                print("With delivery your total will be")
                total_cost = total_cost + 5000
                print(f"Rp. {total_cost}")
                print("Thank you for your purchase and have a great meal and a 'pon' day.")
                exit()

            elif delivery_order == 2:
                print("With self pick up your total will be")
                print(f"Rp. {total_cost}")
                print("We'll wait at location, thank you, and have a 'pon' day.")
                exit()

        elif finalize_order == 2:
            print("Alright please re-order from the beginning.")
            print("")

            pizza_ordering_system()


        else:
            keep_looping = 1




print("Welcome to Mama Pon Online Services, where happiness and fun transverse through cyber space.")

pizza_ordering_system()
```

4.1. The entire code

```
Welcome to Mama Pon Online Services, where happiness and fun transverse through cyber space.
Which pizza would you like to order today?
1) Pepperoni Pizza      :Rp. 24000
2) Cheese Pizza         :Rp. 23000
3) Hawaiian Pizza       :Rp. 26000
4) Meat Pizza           :Rp. 29000
-) Next
Order :1

Any addition?
1) Stuffed Crust        :+ Rp.  7000
2) Extra Cheese         :+ Rp.  4000
3) Extra Topping        :+ Rp.  5000
4) No Addition          :+ Rp.     0
-) Return
Order :1

Total Ordered = 0
How many? :1

Which pizza would you like to order today?
1) Pepperoni Pizza      :Rp. 24000
2) Cheese Pizza         :Rp. 23000
3) Hawaiian Pizza       :Rp. 26000
4) Meat Pizza           :Rp. 29000
-) Next
Order :0

Additional side dish?
1) Bread stick          :Rp. 11000
2) Soup                 :Rp.  6000
3) French Fries         :Rp. 12000
-) Next
Order :0

Additional drinks?
1) Soda                 :(...)
2) Milkshake            :(...)
3) Water Bottle         :Rp.  5000
-) Next
```

```
Order :0

Here's your order :
Pepperoni Pizza [Stuffed Crust] (1) :Rp. 31000

----------------------------------------------+
Total                   :Rp. 31000

Would this be your order?
1) Yes, that will be all.
2) I want to change my order.
Finalize :1

Would you like delivery?
1) Delivery                                    :+ Rp.  5000
2) Self Pick Up                                :+ Rp.     0
-) Return
Order :1

With delivery your total will be
Rp. 36000
Thank you for your purchase and have a great meal and a 'pon' day.

Process finished with exit code 0
```

4.2. Examples of the program running.