

## Explanation of Source Code

Step 1: Start

Step 2: Clear the output in the background.

Step 3: Use the import module to import the mysql connector.

Step 4: Import the time module and use the sleep function.

Step 5: Import the image module to represent a PIL image. Move the cursor to the next line.

Step 6: Set up a connection with mysql server.

Step 7: Allocate the host as "localhost".

Step 8: Allocate port as "3306".

Step 9: Allocate user as "root".

Step 10: Allocate password as "r00ting@you2".

Step 11: Allocate database as "coven".

Step 12: Create a cursor with mysql with the name mycursor. Move the cursor to the next line.

Step 13: Use the dash function.

Step 14: Allocate value of dash as „-" 25 times.

Step 15: Use i variable for a range of 25 times.

Step 16: Display dash, sep as „", end as „", flush as True and put the sleep time period as 0.08 seconds.

Step 17: Display it. Move the cursor to the next line.

Step 18: Define a function cons\_det, for asking the customer details.

Step 19: Display "Enter your name". Move the cursor to the next line.

Step 20: Display "Enter your address".

Step 21: Display "Enter your phone number".

Step 22: Display "Enter the product you want to buy".

Step 23: Use the sql cursor to enter these inputs into the Customer\_table table.

Step 24: Display the values using this cursor, and then commit it. Move to the next line.

Step 25: Define a function cons\_ch\_14 for asking the customer's choice filter 1-

specific product, any area.

Step 26: Display "Selected option: Specific product, Any area".

Step 27: Display "Enter the required product:"

Step 28: Use the dash function, for separating the information.

Step 29: Import the sql cursor mycursor.

Step 30: Display using sql "SELECT Vendor\_Name,Product,Rate,Area,Timings  
FROM Vendor\_Table WHERE Product =%s".

Step 31: Execute it using the sql cursor named mycursor, and input myresult.

Step 32: If the result was not myresult, display "No Matches Found!".

Step 33: Else for a variable x in myresult, display "Your search results are:".

Step 34: Display "Vendor Name, Product, Rate, Area, Timing".

Step 35: Display x. Move the cursor to the next line.

Step 36: Define a function cons\_ch\_32 for asking the customer"s choice filter 2-  
specific area, any product.

Step 37: Display "Selected option: Specific area, Any product".

Step 38: Display "Enter the required area:".

Step 39: Import the sql cursor mycursor.

Step 40: Display using sql "SELECT Vendor\_Name,Product,Rate,Area,Timings  
FROM Vendor\_Table WHERE Area =%s".

Step 41:Execute it using the sql cursor named mycursor, and input myresult.

Step 42: If the result was not myresult, display "No Matches Found!".

Step 43: Else for a variable x in myresult, display "Vendor Name, Product, Rate,  
Area, Timing".

Step 44: Display x. Move the cursor to the next line.

Step 45: Define a function cons\_ch\_24 for asking the customer"s choice filter 4-  
all products, all areas.

Step 46: Display "Selected option: All products, All areas".

Step 47: Display "Vendor Name, Product, Rate, Area, Timing".

Step 48: Import the sql cursor mycursor.

Step 49: Display using sql "SELECT Vendor\_Name,Product,Rate,Area,Timings  
FROM Vendor\_Table".

Step 50: Execute it using the sql cursor named mycursor, and input myresult.

Step 51: If the result was not myresult, display x.

Step 52: Define a variable vend\_det, for asking the vendor details.

Step 53: Display "Enter your name". Move the cursor to the next line.

Step 54: Display "Enter your address".

Step 55: Display "Enter your phone number".

Step 56: Display "Enter the product you're selling".

Step 57: Allocate input type integer type memory for selecting rate of product.

Step 58: Display "Enter the product you're selling:".

Step 59: Display "Enter the area where your product is being sold:".

Step 60: Display "Enter the time wherein the specified product is being sold at that area:".

Step 61: Import the sql cursor mycursor.

Step 62: Display the values using this cursor, and then commit it. Move to the next line.

Step 63: Define a function vend\_ch\_14 for asking the vendor's choice filter 1-specific product, any area.

Step 64 Display "Selected option: Specific product, Any area".

Step 65: Display "Enter the required product:"

Step 66: Import the sql cursor mycursor.

Step 67: Display using sql "SELECT Product,Area FROM Consumer\_Table WHERE product =%s".

Step 68: Execute it using the sql cursor named mycursor, and input myresult.

Step 69: If the result was not myresult, display "No Matches Found!".

Step 70: Else for a variable x in myresult, display "(„Product“),(„ Area“)".

Step 71: Display x. Move the cursor to the next line

Step 72: Define a function vend\_ch\_32 for asking the vendor's choice filter 2-specific area, any product.

Step 73: Display "Selected option: Specific area, Any product".

Step 74: Display "Enter the required area:".

Step 75: Import the sql cursor mycursor.

Step 76: Display using sql "SELECT Product,Area FROM Consumer\_Table WHERE Area =%s".

Step 77: Execute it using the sql cursor named mycursor, and input myresult.

Step 78: If the result was not myresult, display "No Matches Found!".

Step 79: Else for a variable x in myresult, display "(„Product“),(„ Area“)".

Step 80: Display x. Move the cursor to the next line.

Step 81: Define a function coven.

Step 82: Display "Welcome to Coven!".

Step 83: Display "Where Consumers and Vendors Unite!".

Step 84: Use the dash function. Step 85: Display "Are you a Consumer or Vendor?C/V".

Step 86: Use the dash function.

Step 87: If choice is equal to C or c, display "Enter your details below to register yourself".

Step 88: Use the cons\_det function, to register the inputs.

Step 89: Display "You have been added!".

Step 90: Use the dash function.

Step 91: Display "To start buying, select any of the below option(s) by which your search will be filtered:".

Step 92: Display "1. Specific Product".

Step 93: Display "2. All products".

Step 94: Display "3. Specific Area".

Step 95: Display "4. All Areas".

Step 96: Allocate input type integer type memory for cons\_choice for selecting Choice, display "Enter your choice".

Step 97: If cons\_choice is equal to 1 or 14 or 41, then cons\_ch\_14.

Step 98: Elif cons\_choice is equal to 3 or 32 or 23, then cons\_ch\_32.

Step 99: Elif cons\_choice is equal to 13 or 31, then display "Sorry! Search option unavailable".

Step 100: Elif cons\_choice is equal to 24 or 42, then cons\_ch\_24.

Step 101: Else, display "Invalid input".

Step 102: Use dash function.

Step 103: If choice is equal to "V" or "v", then use vend\_det function.

Step 104: Display "You have been added!".

Step 105: Use dash function.

Step 106: Display "To start selling, select any of the below option(s) by which your search will be filtered:".

Step 107: Display "1. Specific Product".

Step 108: Display "2. All products".

Step 109: Display "3. Specific Area".

Step 110: Display "4. All Areas".

Step 111: Allocate input type integer type memory for vend\_choice for selecting choice, display "Enter your choice".

Step 112: If vend\_choice is equal to 1 or 14 or 41, then vend\_ch\_14.

Step 113: Elif vend\_choice is equal to 3 or 32 or 23, then vend\_ch\_32.

Step 114: Elif vend\_choice is equal to 13 or 31, then display "Sorry! Search option unavailable"

Step 115: Elif vend\_choice is equal to 24 or 42, then vend\_ch\_24.

Step 116: Else, display "Invalid input".

Step 117: Use dash function.

Step 118: Else, display "Invalid input".

Step 119: Define a function about.

Step 120: Display "About our project:"

Step 121: Use dash function.

Step 122: Use open function to read the data of famers\_coven.txt text document.

Step 123: Define a variable each in file.

Step 124: Display each.

Step 125: Use sleep function with time period as 1 second.

Step 126: Use dash function.

Step 127: Display "Statistics of our project are:".

Step 128: Execute it using the sql cursor named mycursor, and input myresult.

Step 129: Assign the value of myresult to that of mycursor.fetchall .

Step 130: Display “(„Product“, „Amount sold before this initiative“, „Amount sold after this initiative“, „Profit Percentage“)”

Step 131: For a variable x in myresult, display x.

Step 132: Use dash function.

Step 133: Display “Graphical representation of how our project made an impact”.

Step 134: Import matplotlib from pyplot module as plt.

Step 135: Create a list, left=[1, 2, 3, 4, 5, 6, 7, 8, 9, 10].

Step 136: Create a list, height=[8, 12, 25, 100, 30, 60, 18, 24, 25, 50].

Step 137: Create a list, height=[8, 12, 25, 100, 30, 60, 18, 24, 25, 50].

Step 138: Create a list, tick\_label=['Potato before', 'Potato after', 'Apple before', 'Apple after', 'Maize before', 'Maize after', 'Cabbage before', 'Cabbage after', 'Wheat before', 'Wheat after'].

Step 139: Plot the bar graph by the function plt.bar(left, height, tick\_label=tick\_label, width=0.8, color=['red', 'green'])

Step 140: Name the x-axis by the function plt.xlabel('Crop').

Step 141: Name the y-axis by the function plt.ylabel('Rate').

Step 142: Name the title of the graph by the function plt.title('Comparing the rates of crop before and after to show the profit')

Step 143: Use the function plt.show to show the graph.

Step 144: Use dash function.

Step 145: Display “This has resulted in both happy consumers and vendors!”.

Step 146: Use the function Image.open to open the image vendor.jpg, and name it's variable as img1.

Step 147: Show the image by the function img1.show .

Step 148: Use the function Image.open to open the image buyer.jpg, and name it's variable as img2. Step 149: Show the image by the function img2.show .

Step 150: Use the function Image.open to open the image sellbuy.jpg, and name it's variable as img3.

Step 151: Show the image by the function img3.show .

Step 152: Use dash function.

Step 153: Display “Thank you for Contributing to our project!”

Step 154: Use the function `coven`.

Step 155: Allocate the value of a variable `i` as 1.

Step 156: Create a condition while `i>0` .

Step 157: Display "Select any one of the options below:".

Step 158: Display "1.Continue shopping".

Step 159: Display "2.Add/Delete products to/from the waiting list".

Step 160: Display "3.Know more about our project".

Step 161: Display "4.Exit application".

Step 162: Use dash function.

Step 163: Input the `continue_choice` as 1/2/3/4.

Step 164: If the value of `continue_ch` value is equal to 1, go back to the `coven` function.

Step 165: If the value of `continue_ch` value is equal to 2, print the current list.

Step 166: Ask the user to add or delete from the waiting list.

Step 167: If the value of `wait_opt` is "a" or "A", display "Enter the product you want to add to the waiting list:".

Step 168: Append the `waiting_product` into the list `myStack`.

Step 169: Elif the value of `wait_opt` is "d" or "D", display "Enter the number of the product you want to delete to the waiting list:".

Step 170: Pop the `waiting_product` from the list `myStack`.

Step 171: Else, display "Invalid Input!".

Step 172: Put the value of `i` as -1 to terminate the while loop.

Step 173: Use the dash function.

Step 174: Display "Waiting list is:", `myStack`.

Step 175: If the value of `continue_ch` is equal to 3, go back to about variable.

Step 176: Display "Would you like to shop/sell? Y/N".

Step 177: Input the value of variable `final_ch`.

Step 178: If the value of `final_ch` is "y" or "Y", go back to the `coven` variable.

Step 179: Elif the value of `final_ch` is "n" or "N", display "See you later!".

Step 180: Put the value of `i` as -1 to terminate the while loop.

Step 181: Elif the value of value of `continue_ch` is 4, display "Thank you for using our

application”.

Step 182: Display “See you later!”.

Step 183: Put the value of i as -1 to terminate the while loop.

Step 184: Else, display “Invalid input!”.

Step 185: Allocate value of  $i+=1$ .

Step 186: End