**Data Dictionary**

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| **Name** | **Data Type** | **Variable Type** | **Description** |
| Landing Page | | | |
| Customer | Button | Calling module | Activate the function - '**UserUserSelection**'. |
| UserUserSelection | Function | Called module | When user click on it, the function will launch a file which named ‘**UserGUI.py**’ to lead user to another page which is User GUI. |
| Staff | Button | Calling module | Activate the function - '**UserStaffSelection**'. |
| UserStaffSelection | Function | Called module | When user click on it, the function will launch a file which named ‘**StaffLogin.py**’ to lead user to another page which is Staff Login page. |
| User GUI | | | |
| UserGUI | Module | Called module | Module for User GUI. |
| CheckBMI | Module | Called module | Module for checkBMI. |
| Suggestion | Module | Called module | Module for Suggestion. |
| Membership | Module | Called module | Module for Membership. |
| Nutrient | Module | Called module | Module for Nutrient. |
| Checkout | Module | Called module | Module for Checkout. |
| now | time (syntax from Python) | Called module | Show user’s login time. |
| TotalCost | Variable | Global variable | A variable to carry the value of total cost spend by customer. |
| TotalBMI | Variable | Global variable | A variable to carry the value of BMI of customer. |
| weightentry | Float | Global variable | User input weight for BMI calculation. |
| heightentry | Float | Global variable | User input height for BMI calculation. |
| showBMI | String | Array | Print back the value that get from **calcbmi** function. |
| GetWeight | Variable name | Local variable | Variable name that carry value from **weightentry**. |
| GetHeight | Variable name | Local variable | Variable name that carry value from **heightentry**. |
| verifyshopstatus | Variable name | Local variable | Variable name that read ‘**state.txt**’ file. |
| CalculateButton | Button | Calling module | Activate the function - '**calcbmi**'. |
| calcbmi | Function | Called module | When user click on it, it will retrieve data from '**GetWeight**' and '**GetHeight**' to do the calculation with this formula. Next, system will return the value by print it on the screen.  Then, system will compare the ‘**state.txt**’ file in the folder. If the ‘**state.txt**’ file == Enabled, then the shop will be working or vice versa. |
| R1, R2, R3,R4 | Radiobutton | - | These radio button represents a value each to be send for cost calculation according to users’ selection. |
| var | Variable | Global variable | A variable to carry the one value from **R1**, **R2**, **R3**, **R4** for **calcmembership** to calculate **TotalCost**. |
| radiovar | Variable name | Local variable | A variable name to carry the value from **var**. |
| BuyThisButton [Membership] | Button | Calling module | Activate the function - '**calcmembership**'. |
| calcmembership | Function | Called module | Get variable from **var** and do the calculation. |
| musclebooster, vitaminbooster, proteinbooster | Spinbox | - | These spinbox allow user to choose from 0 to 10 as the nutrient supplements’ quantity they want to buy. |
| muscle, vitamin, Protein | Variable | Global variable | This three variable name will act as the variable for **musclebooster**, **vitaminbooster**, **proteinbooster** respectively to be send for cost calculation according to users’ selection. |
| BuyThisButton [Nutrient] | Button | Calling module | Activate the function - '**calcnutrient**’ |
| calcnutrient | Function | Called module | Get variable from **muscle**, **vitamin** and **protein** to do the calculation. |
| ticketnumber | randint (Syntax from python) | Global variable | Generate random numbers range based on number given. |
| CheckoutButton | Button | Calling module | Activate the function - '**checkout**'. |
| checkout | Function | Called module / Array | This function will conclude the **TotalCost** for the purchase. The system will show a dialogue box with the total amount of items and generate a random **ticketnumber** for the customers. If the customer didn’t buy anything, the system will show ‘See you next time!’ dialogue box and exit the program. |
| Staff Login | | | |
| StaffLogin | Module | Called module | Module for StaffLogin |
| usernameentry | String | Global variable | Staff input for username. |
| passwordentry | String | Global variable | Staff input for password. |
| username | Variable | Global variable | Value for username. |
| Password | Variable | Global variable | Value for password. |
| Database | Database | Database | Place to store **username** and **password**.  database=[ ['staff','1234'],['admin','4321'] ] |
| LoginButton | Button | Calling module | Activate the function - '**loginbutton**'. |
| loginbutton | Function | Called module | The system will get the value from **usernameentry** and **passwordentry.** If the input value match the value from the database, the system redirect staff to launch another file which named ‘**StaffGUI.py**’ and redirect staff to Staff GUI. Otherwise, the system will show a ‘Please try again!’ dialogue box. |
| Staff GUI | | | |
| StaffGUI | Module | Called module | Module for StaffGUI |
| R1, R2 | Variable | - | These radiobutton represents a value each to be written into the ‘**state.txt**’. |
| var | Variable | Global variable | A variable to carry the one value from **R1**, **R2** to be written into the ‘**state.txt**’. |
| shopvar | Variable name | Local variable | A variable name to carry the value from **var**. |
| ApplyButton | Button | Calling module | Activate the function - ' **saveshopstatus**'. |
| saveshopstatus | Function | Called module | The system will get value from **shopvar** and write the assigned content into ‘**state.txt**’. Then, system will exit the program. |
| state.txt [TXT File] | String | Array | A place to store value for **verifyshopstatus** usage. |