

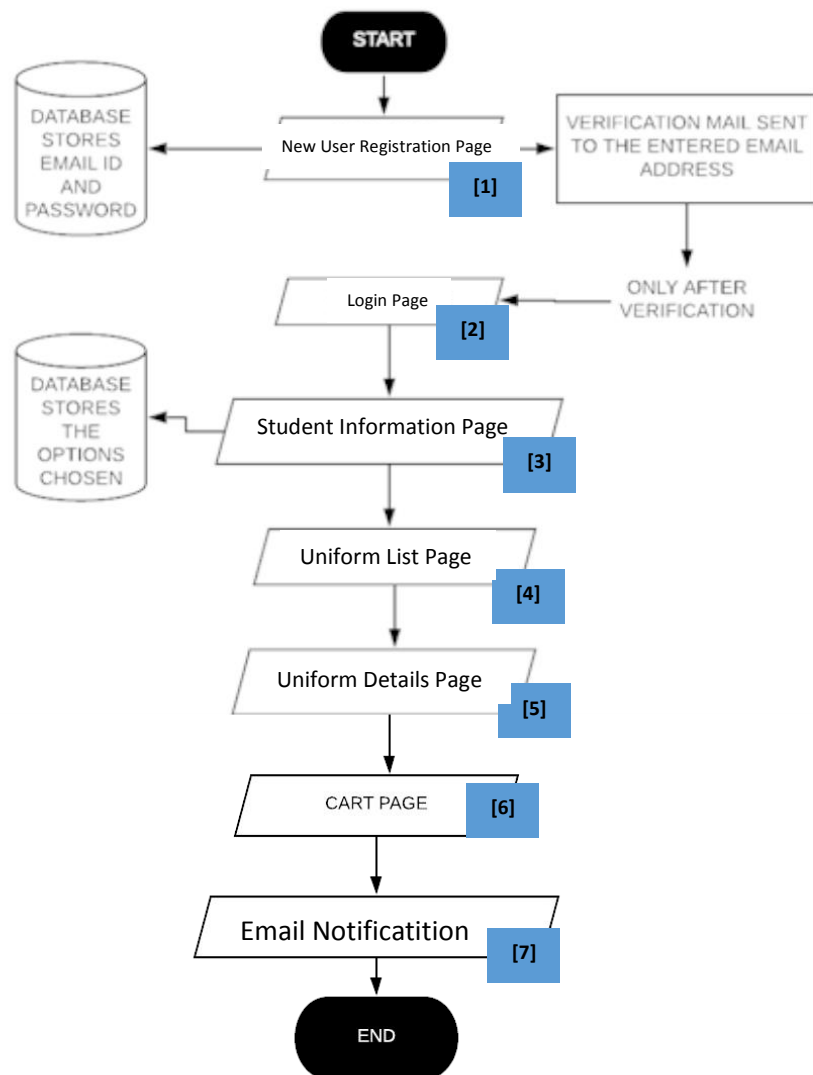
CRITERION B

INTERNAL STRUCTURE
AND OVERALL
STRUCTURE

Overall Structure

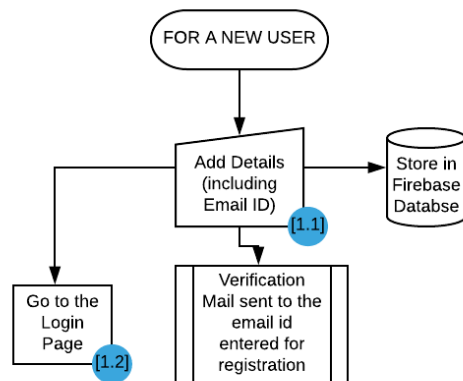
The numbers in the design in the overall structure link the proposed designs of the internal structure.

1) Proposed Flow of App

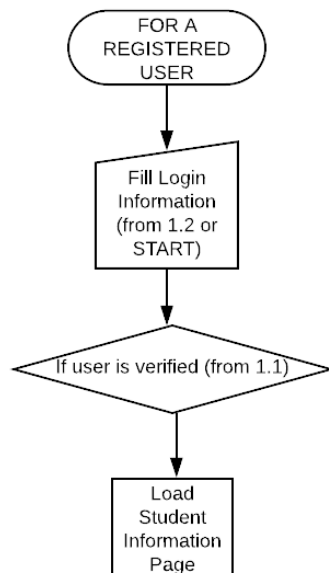


¹ https://www.lucidchart.com/pages/tour/flowchart_freeware

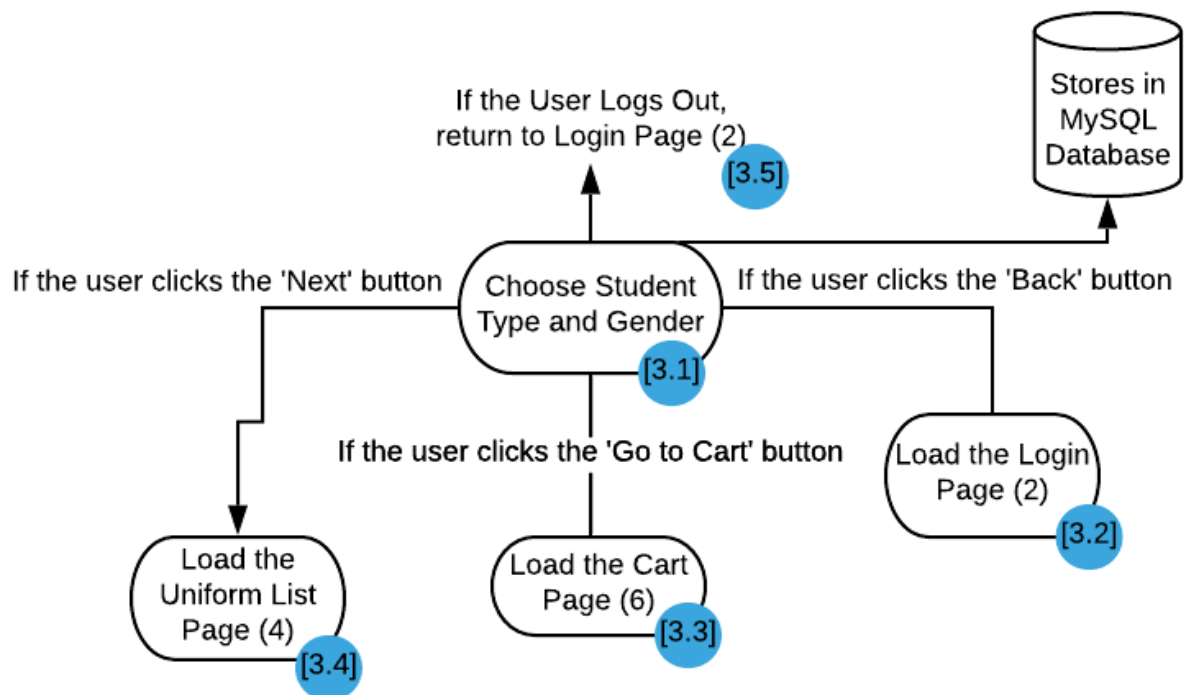
2) Proposed flow of Registration Page



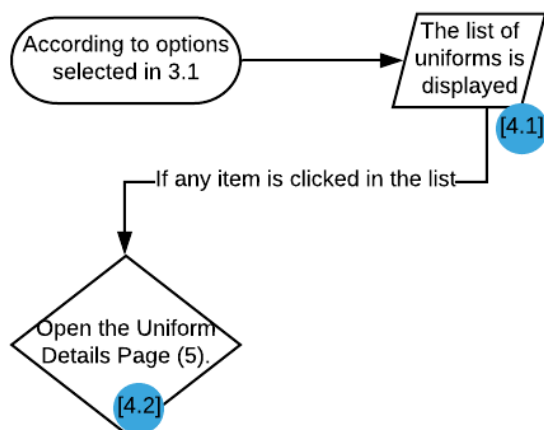
3) Proposed flow of Login Page



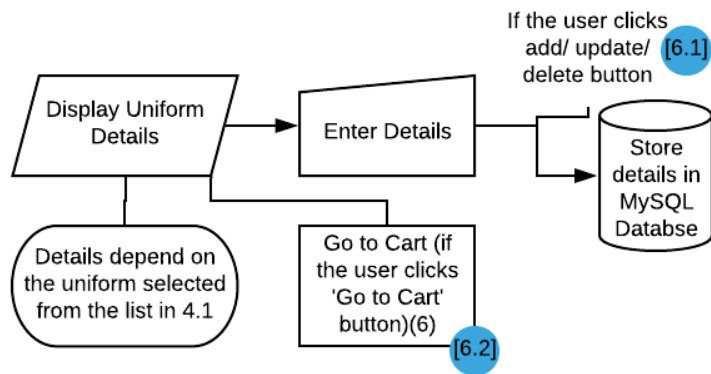
4) Proposed flow of Student Information Page



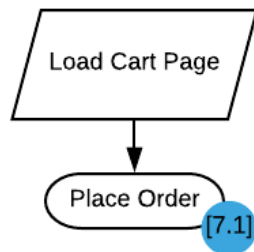
5) Proposed flow of Uniforms List Page



6) Proposed flow of Uniform Details Page



7) Proposed flow of Cart Page



Internal Structure

1. A) Proposed registration page

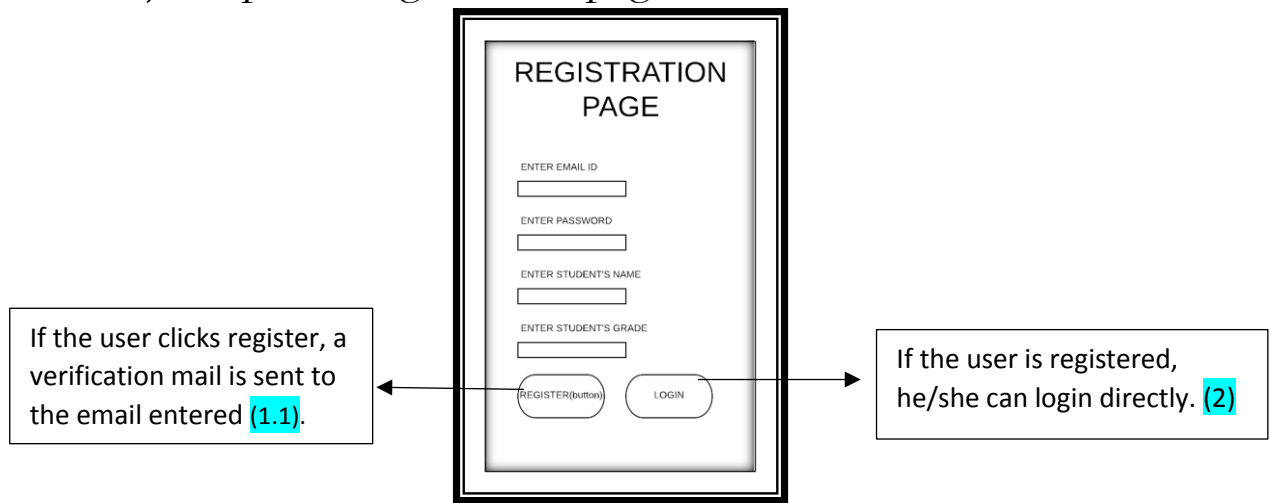


Fig. 1

B) Table of the proposed Registration page:

Field Name	Data Type of the field	Purpose
Email ID	String	Secured Registration of the user
Password	String (alphanumeric)	To secure the user's data.
Name	String	Store the student's name
Grade	String	Store the student's grade
Registration	Button	To send a verification mail to the email id entered in the field, 'email id' and store the data in the database
Login	Button	If a user is already registered, he/she can directly login to the app

2. A) Proposed Login Page

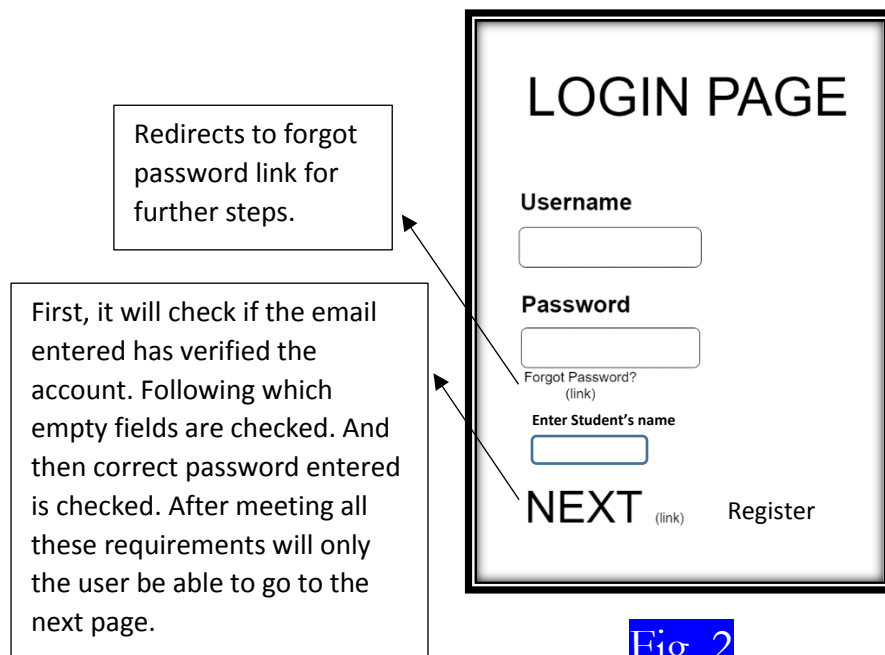


Fig. 2

B) Table of proposed login page:

Field Name	Data Type of the field	Purpose
Username	String	To personalize the user's information
Password	String (alphabets and numbers)	To secure the user's data.
Forgot Password	Link	Link to reset the password
Next	Button	next page
Register	Button	Directs to the registration page for new users

3. A) Proposed Student Information

STUDENT INFORMATION PAGE

Student Type:

- Day Scholar
- Weekly Boarder
- Term Boarder

Gender:

- Female
- Male

BACK NEXT

GO TO CART

LOG OUT

Radio button: only one can be selected at a time;
It is mandatory to select one button to go to the next page

Will go to the next button only when one of the radio button in both the groups are selected.

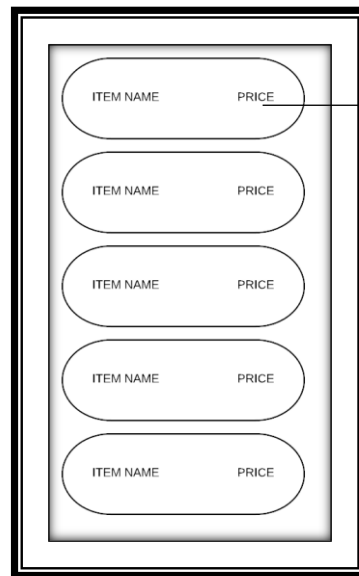
Fig. 3

B) The form of the Student Information Page is as follows:

Field Name	Data Type	Purpose	Description
Student Type	Radio Buttons	To filter the uniform items list	The user can select only one of the radio buttons
Gender	Radio Buttons	To filter the uniform items' list	The student can select only one of the radio buttons
Next	Button	Goes to next page	

The selection construct here defines the list of uniform to be displayed in the next page. For example, the list of uniforms differs from Day Scholar to Boarder.

4. A) Proposed Uniform List Page



Clickable card layouts; once clicked (4.1) will be directed to the Uniform Details page (5). Each object in the list will be clickable and the details in the Uniform Details Page will be displayed according to the card clicked here.

Fig. 4

B) Details of each card is as follows:

Field Name	Data Type	Purpose	Description
Card	Clickable Card	To go to the details of the particular uniform item card selected	This card is clickable
Item Name	String	Displays the different uniform name	
Item Price	String	Displays the corresponding uniform price with the uniform name	

The same card layout is used for other cards.

5. A)Proposed Item Details Page

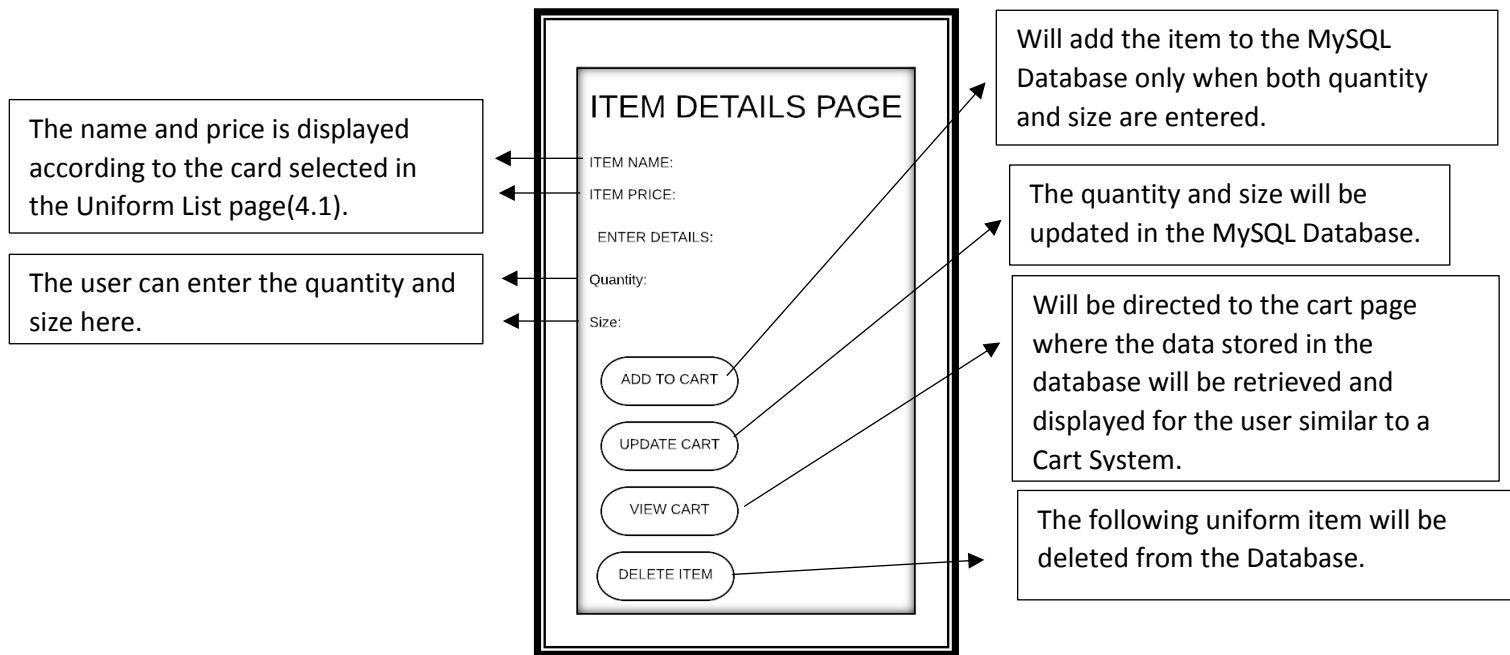


Fig. 5

B) Forms to add/remove/update/view the items in the cart

Field Name	Data Type	Purpose	Description
Item Name	String	Displays the different uniform name	The name is displayed according to the card clicked on in the previous page, 'Uniform List Page'
Item Price	String	Displays the corresponding uniform price with the uniform name	The price is displayed according to the card clicked on in the previous page, 'Uniform List Page'

Quantity	String	User can enter the required quantity within a limit.	The maximum and minimum value that the user can enter is displayed.
Size	String	User can enter the required size within a limit.	The maximum and minimum value that the user can enter is displayed.
Add to Cart	Button	As the user clicks this button the data is stored in the cart in the database.	Connected to the MySQL Database.
Update Cart	Button	As the user clicks this button the data stored in the cart gets updated.	Connected to the MySQL Database.
View Cart	Button	As the user clicks this button, the user can view all the data stored in the cart.	Connected to the MySQL Database.
Delete Item	Button	As the user clicks this button a pop dialog box appears to confirm the deletion.	After the confirmation, the item is deleted from the cart. Connected to the MySQL Database.

6. A) Proposed Cart Page



The diagram shows a rectangular box representing a cart page. Inside, the word "CART" is centered at the top. To its right is an oval button labeled "PLACE ORDER". Below these, there are four column headers: "Item Name", "Item Price", "Quantity", and "Size".

Fig. 6

B) Proposed details of the Cart Page

Field Name	Data Type	Purpose
Place Order	Button	Goes to the 'Mail page'

7. A) Proposed Mail Notification



The diagram shows a rectangular box representing an email notification. Inside, the text "Email Notification" is centered at the top. Below it, the word "Hello" is on the left, and the sentence "Your order has been placed." is on the right.

Fig. 7

Test Plan

Part of System Being Tested	Test Name	Purpose	Expected outcome	Actual Outcome	Comments
Registration Page	Valid Email id and Password is used to register	Verify through verification mail sent to the entered email id to check if such a mail exists.	A verification mail is sent to the entered email id and the user verifies it to login	MET	
	Data is stored in Firebase Database	After registering, the data is stored in the Firebase Database.	The Email id, Student's name and Student's grade is stored in the database.	MET	
	Check if these users are present in the client's database.	To check if the student's are present in the list of students in the client's database.	The user should be registered only if the student is present in the client's database.	NOT MET	Too complex : The students' list had many students to make a check and then add to the new database.
Login Page	Login Page opens the next page	To make sure the first (main) page opens to continue the using the app	The student information page opens	MET	
	Valid Username and Password are identified	To check if the system is using the predefined data.	It shall accept the valid username and password.	MET	
	Goes to the 'forgot password' page	To check if 'forgot password' page works	'forgot password' page opens and works properly.	MET	
Student Information Page	Selects only one option in 'Type of student' options list	To check that only a single option is selected at a time	Only one option is selected	MET	
	Selects only one option in 'Gender' options list	To check that only a single option is selected at a time	Only one option is selected	MET	
Uniform Page	Filter of the options selected in the 'Student Information' page is applied in 'Uniform' Page	To check that the filters applied in the previous page are applied correctly in the next i.e. 'Uniform' page	The filters work in the 'Uniform' page	MET	
	Size is entered in the range allowed	To check if the user enters the data in the limit allowed	The permitted range of data can be entered by the user.	NOT MET	The java code could not take double digit input. For example, it couldn't restrict the maximum-minimum filter for double digit inputs.
	Quantity is entered in the range allowed	To check if the user enters the data in the limit allowed	The permitted range of data can be entered by the user.	MET	The same java function was used for Size. However, it worked since the input was a single digit.
	The rate column is fixed	To check that the rate is unchangeable or fixed	The rate is fixed	MET	
	Objects are added, deleted or updated to the cart	To check that items are getting added, deleted, or updated to the cart.	The required function are performed in the cart page.	MET	
Item Details page	Enter quantity and size according to Minimum and Maximum value	To check that the entered data is valid or not	The input value must be within the limits set.	MET	
	The add to cart button adds the uniform only when the quantity and size is entered by the user	To check that uniform item is added to the cart. It shall only be added when the size and quantity are entered.	Show toast message when size and quantity are not filled and add to cart button is clicked.	MET	
	The view cart button	Goes to the cart page	It retrieves data stored in the database and the user can view it accordingly.	MET	
	Clicking update button	The item details i.e. size, and quantity of the uniform item gets updated according to the uniform item	It updates the data by identifying the uniform item selected.	MET	
	Clicking delete button	To check the item is deleted or not from the cart. The delete button on clicked shows an alert dialog box to confirm if the user wants to delete the item.	The item is clicked only after the confirmation is made. If the user selects 'yes' only then will the item be deleted. Else on clicking the 'no' button the item isn't deleted from the cart.	MET	
Cart Page	Display the cart	To check if all the functions in the item details page is working i.e. add, delete, update buttons; To check if the cart is updated and displays all the item required in the list; The same is added to the My SQLite Database	The list in the cart should be updated after if a function (add, delete, or update) is selected to be performed. These changes are made in the My SQLite Database as well.	MET	
Mail	A push email notification displays on order confirmation.	An email notification is displayed on the top of the screen.	Only a notification has to be displayed on the screen	MET	
	Calculate the total amount the user must pay.	The total amount of all the items selected is calculated.	For each item its quantity should be used to determine the total cost and then the total amount to be paid by the user should be calculated.	NOT MET	The calculation function was too complex.

Bibliography

1. Lucid Chart

https://www.lucidchart.com/pages/landing?utm_source=google&utm_medium=cpc&utm_campaign=en_tier3_desktop_branded_x_exact_lucidchart&km CPC CampaignId=1484560207&km CPC AdGroupId=60168113951&km CPC Keyword=lucid%20chart&km CPC MatchType=e&km CPC ExtensionID=&km CPC Network=g&km CPC AdPosition=&km CPC Creative=337239628229&km CPC TargetID=aud-837074142685:kwd-55720648523&km CPC Country=9062211&km CPC Device=c&km CPC_placement=&km CPC_target=&mkwid=sHltfOEwL%7Cpcrid%7C337239628229%7Cpkw%7Clucid%20chart%7Cpmt%7Ce%7Cpdv%7Cc%7Cslid%7C%7Cproduct%7C%7Cpgrid%7C60168113951%7Cptaid%7Caud-837074142685:kwd-55720648523%7C&pgrid=60168113951&ptaid=aud-837074142685:kwd-55720648523&slid=&pgrid=60168113951&ptaid=aud-837074142685:kwd-55720648523&gclid=Cj0KCQiAv8PyBRDMARIsAFo4wK180Va51SzetHapdZHUOUJYZZIB5d_xaz5E1tQ0ICTQeF25KBmChr4aAnVSEALw_wcB