

Private Expenditure Tracking

Idea

When you start managing your finances, you'll have a better perspective of where and how you're spending your money. This can help you keep within your budget, and even increase your savings. With good personal finance management, you'll also learn to control your money so you can achieve your financial goals.

The main goal of this software is to store and manage all expenses and keep track of all data related to them. This is only made taking the need of only a single user into account. With this one can easily keep track of their expenses.

Objectives

Any person who may be on a tight budget or just wants to keep track of their expenses can use them. So the userbase can be anyone.

Suitability: Instead of adding too many features and making the process too complicated this software mainly focuses on user experience. Where anyone can easily access and use all the functionality without any complications.

Self descriptiveness: Each part is self-descriptive and also is easy to understand. There are error tolerance methods given to overcome some errors even if they happen.

As such the software should also have some boundaries like the user should not be able to edit the data once it's entered as this may lead to changing some previous data.

The targeted user

Everyone should be able to access this software to every part that is easy to understand and UI is simple to use.

Requirements & Functionalities

Not only it should capture the use case but also capture it as a quality attribute's .its time to stop using paper and excel spreadsheets for keeping records of your cash payments and online transactions! Papers are tough to handle and more dangerous for the environment.

On the other hand, excel sheets may offer an online solution but don't do much help in money handling. So, it's better to develop money management software that collects insights from the data and helps make business decisions.

- Users can add items with cost to the expense list.
- Users also can add a type of expense and their own custom type.
- On the side, users can also visualize the type of expense they are doing in particularly with the help of a pie chart.
- a filter can be implemented to see a particular type of expense done by the user.
- they can also set the time duration up to which they want to see the expenses done(default expense duration is 1 month). predefined duration can be of 1 day, 1 week, or 1 month.
- user can also input their monthly expense limit so that they can know every time how much more can they afford to spend.

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Requirements

- **Mitigates Human Errors**

As manually managing data can lead to human error, and may result in losses. this can be easily overcome by using software to store data and validating easy expenses.

- **Offers Precise Analytics**

This can offer visual and hardcoded data in a well-displayed format.

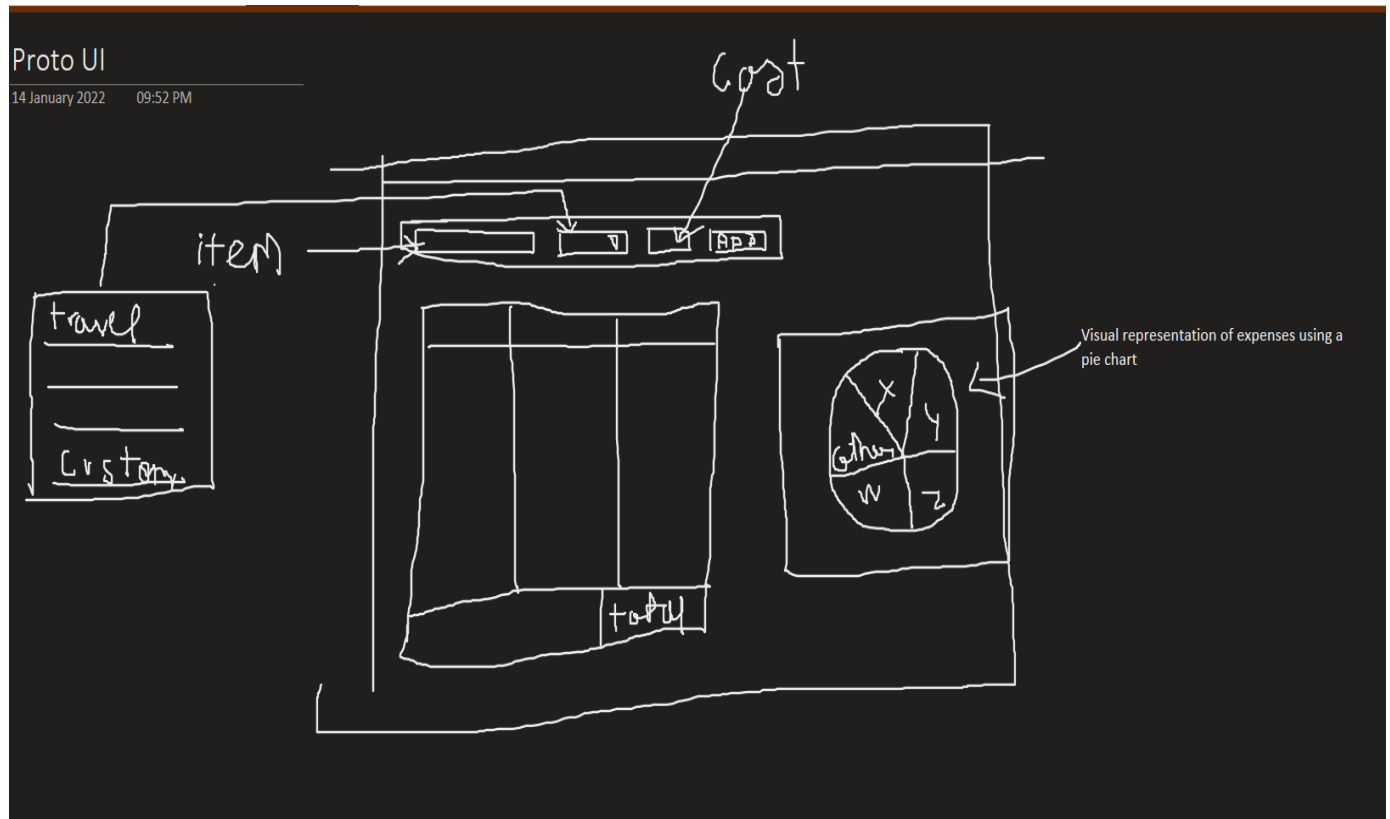
- **Help to manage daily expenses**

This also helps in keeping track of daily expenses . in case one wants to keep track of their monetary expenditure this can help a lot. And can also help in saving the receipt in digital formats

Concept and visualization

While developing software the first planning starts from a prototype while each iteration tries to be better than the last one. each one has made great improvement in the sense of user design and user accessibility.

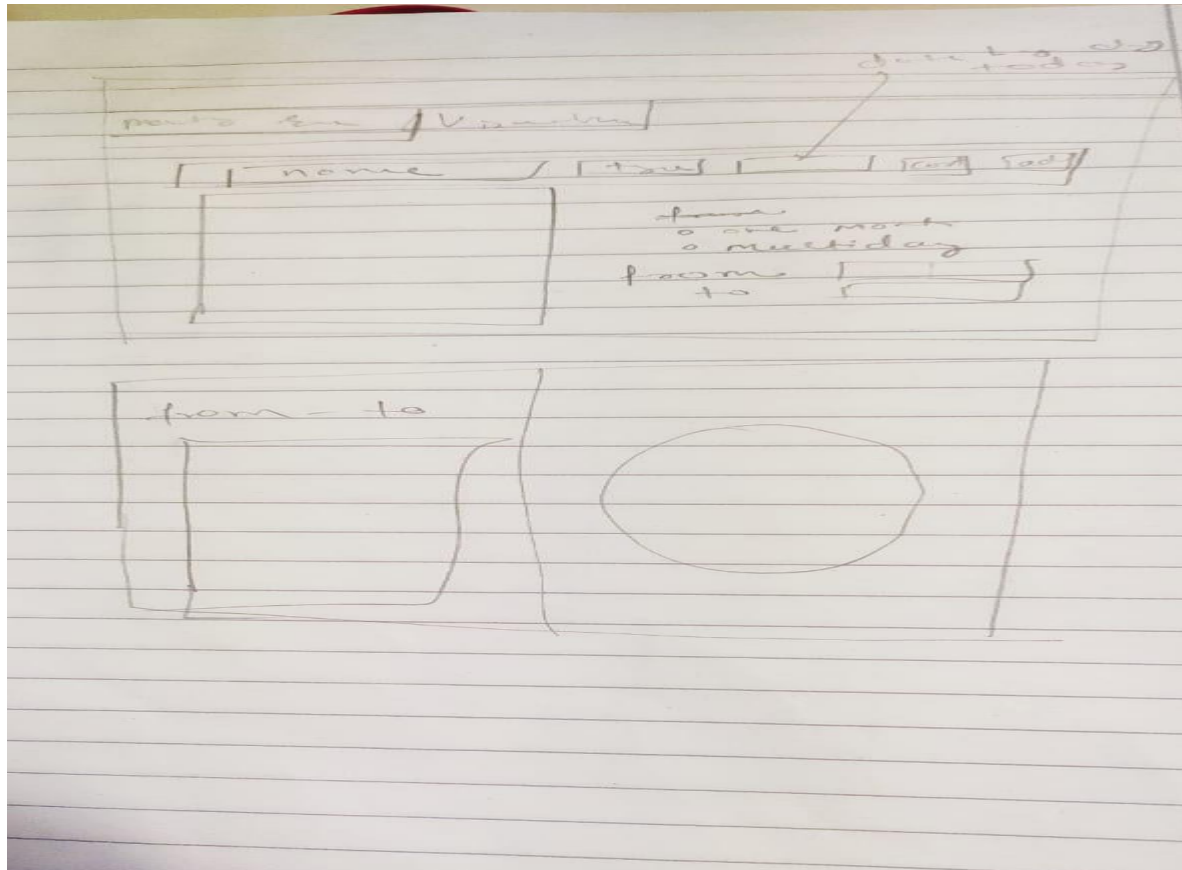
First step



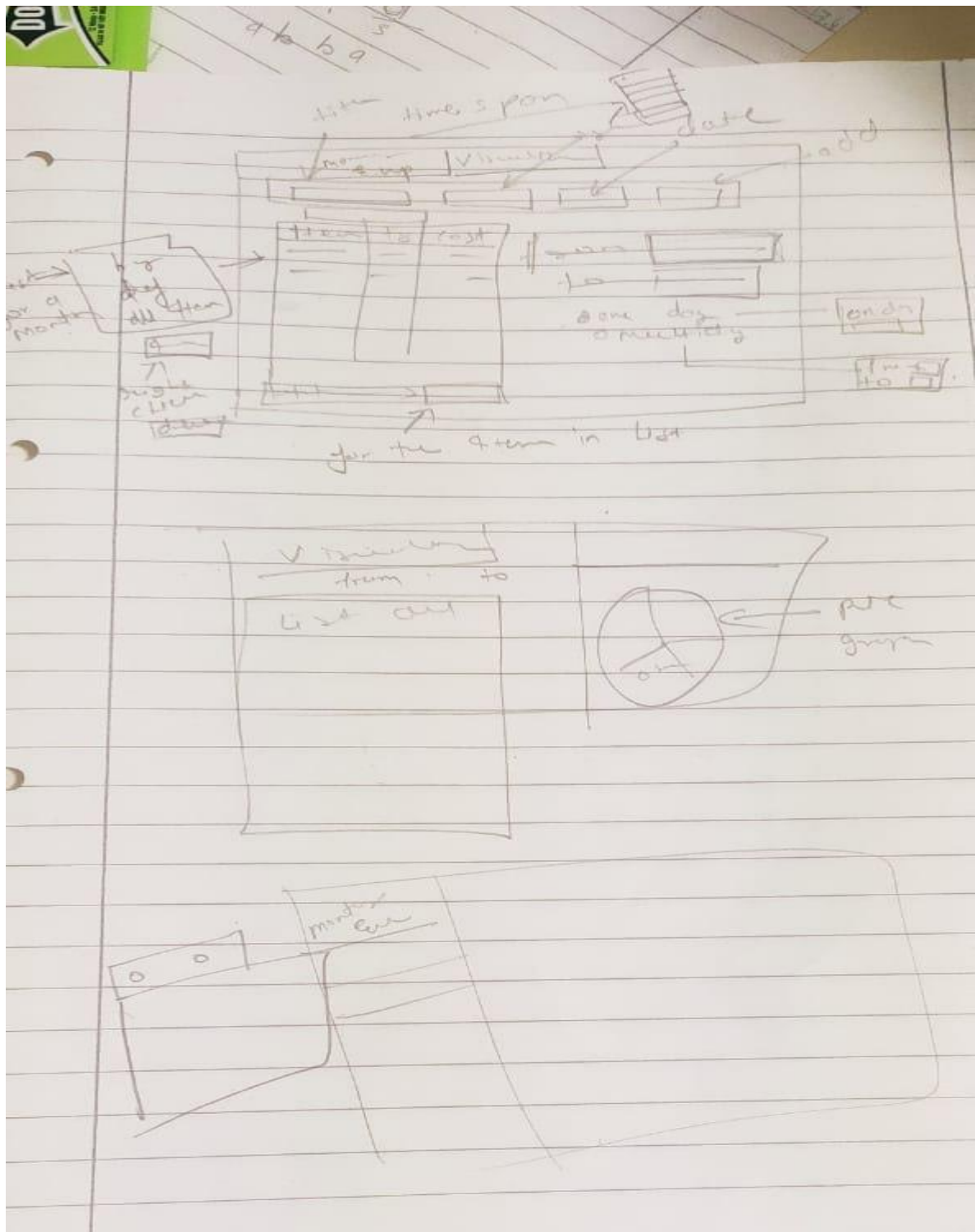
Prototype 1

This was the initial design which started to take form when I first imagined how the software is going to look like. As i understood that this had many features on the same page and was not user friendly

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started to visualize two different screen

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Proto 2

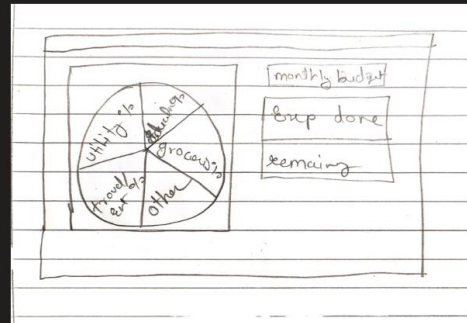
15 January 2022 10:55 PM

Private Exp Home

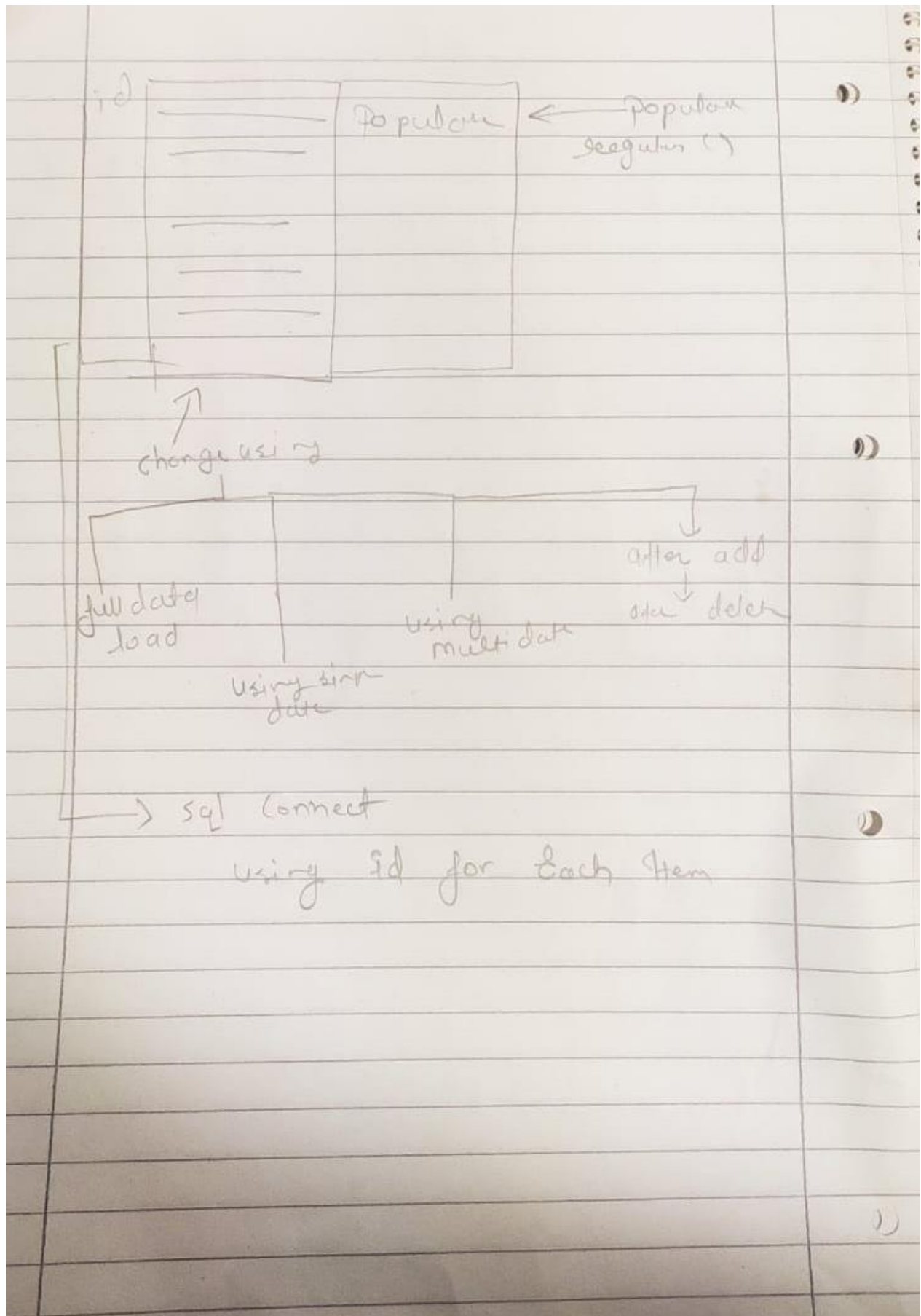
Expense details ▶

Item no. | type | Cost |

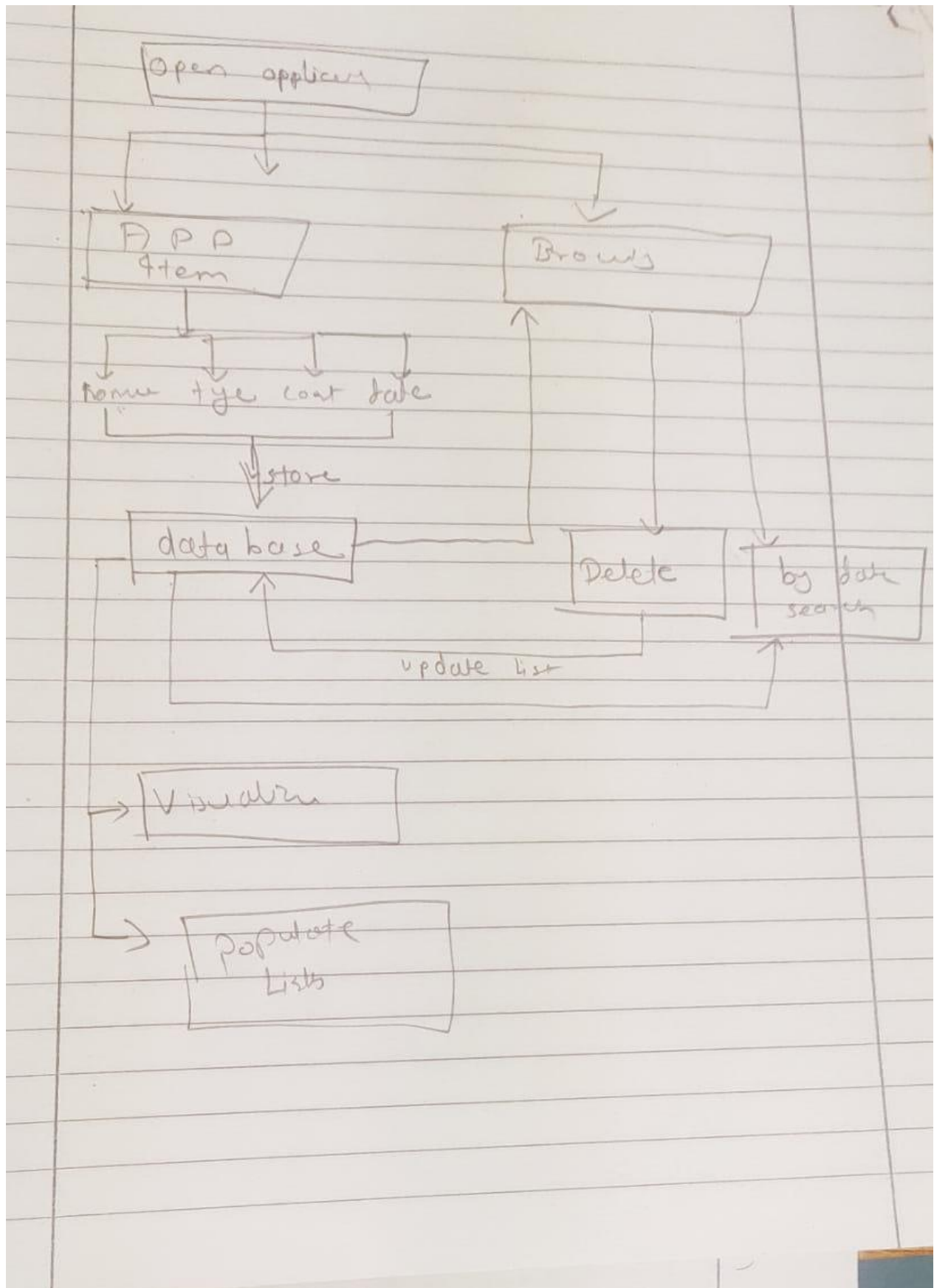
Item	All	Cost	View
			week
			day
			month



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Final Wireframes

Window Title

Tab 1

Tab 2

Item

Text Box

Cost

Select

▼

12 May

Add

☒ Single Day ☐ multi day

< March 2017 >

Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Item 1

Item 2

Item 3

Item 4

Item 1

Item 2

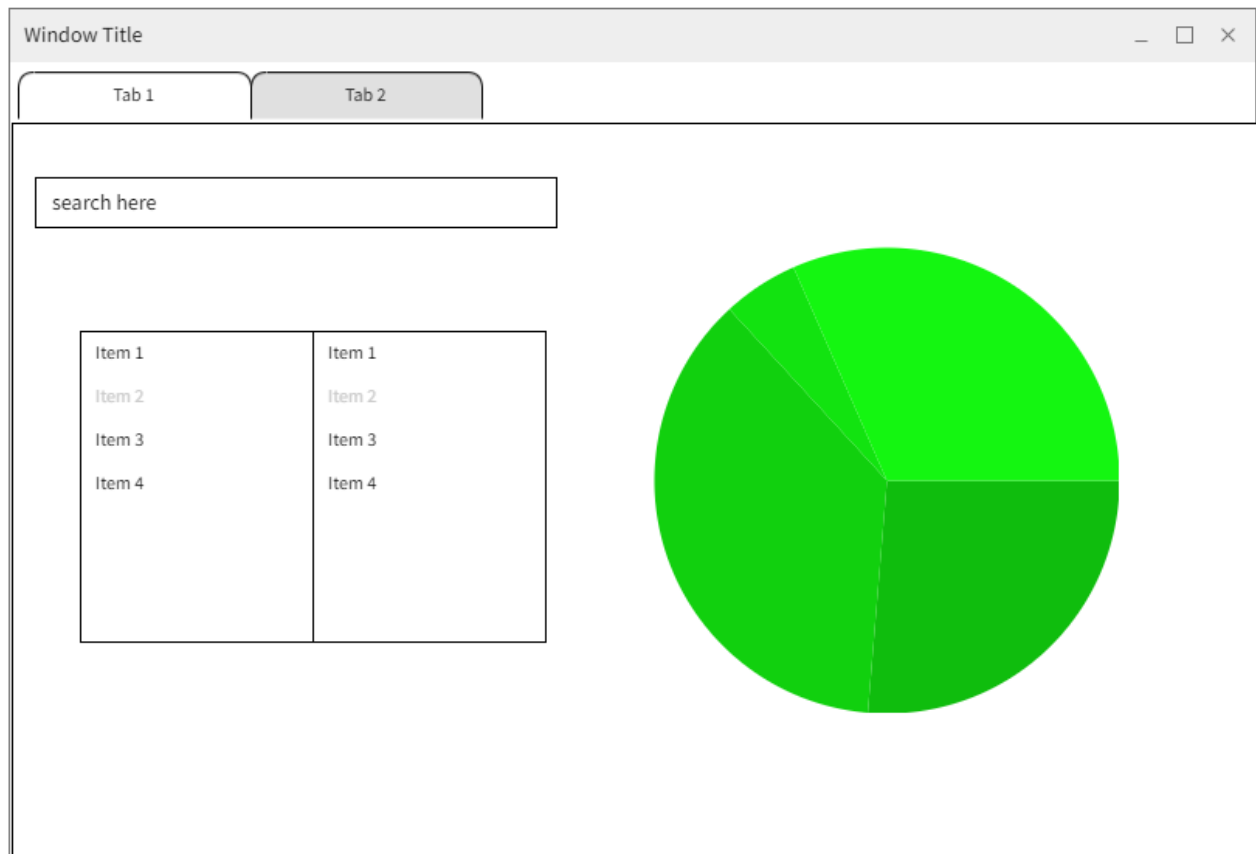
Item 3

Item 4

Delete

all item

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Final wireframe

1. Adding Expense

Here we will see how the user will add their expense to the list

At first, they have to fill in the item name, which enables the add button as we can see it's currently disabled.

My Expense Tracker

ExpenseVisualizer

Add Expense Information Here.

Item

Enter Expense Name

Cost

Select a date

15

Add

Single Day

Multi Day

February, 2022

Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	1	2	3	4	5	6
7	8	9	10	11	12	13

Item	Cost
asdasd2	33
asdasd23	33
asdasd233	33
asdasd2333	33
fdgdfgdfg	33
fdgdfgdfgdfg	33
test	33
test2	33
test2	33
test2	33
exptest2	55

Delete

All Items

Total

385

CheckBox

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My Expense Tracker

Expense

Visualizer

Add Expense Information Here.

Item

dummy1

Cost

Select a date

15

Add

Single Day

Multi Day

February, 2022

Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	1	2	3	4	5	6
7	8	9	10	11	12	13

Item	Cost	CheckBox
asdasd2	33	
asdasd23	33	
asdasd233	33	
asdasd2333	33	
fdgdfgdfg	33	
fdgdfgdfgdfg	33	
test	33	
test2	33	
test2	33	
test2	33	
exptest2	55	

<

>

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>

Delete

All Items

Total

385

2. Adding Other information

Here we added other information where cost can only be added with number we cannot input any characters in it. by default, the type is set to another .there are 4 different categories and you can also set a custom category to the expense type. After that, we need to select the date, by default it will select today's date if no date is selected. Then we can simply add the item

My Expense Tracker

ExpenseVisualizer

Add Expense Information Here.

Item

Cost

Utility

Add

☒ Single Day ☐ Multi Day

February, 2022

Mo	Tu	We	Th	Fr	Sa	Su
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	1	2	3	4	5	6
7	8	9	10	11	12	13

Item	Cost
asdasd2	33
asdasd23	33
asdasd233	33
asdasd2333	33
fdgdfgdfg	33
fdgdfgdfgdfg	33
test	33
test2	33
test2	33
test2	33
exptest2	55

☐ CheckBox

< >

385

DeleteAll ItemsTotal

3. Browsing the list

We can see the item added to the list and we can see here all the data which is in the database.

And as the pointer in the calendar is currently on 10 we can see all the items added on that date.

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My Expense Tracker

Expense

Visualizer

Add Expense Information Here.

Item

Cost

Utility

▼

17-02-2022

15

Add

☒ Single Day ☐ Multi Day

February, 2022

Mo Tu We Th Fr Sa Su

31 1 2 3 4 5 6

7 8 9 10 11 12 13

14 15 16 17 18 19 20

21 22 23 24 25 26 27

28 1 2 3 4 5 6

7 8 9 10 11 12 13

Item	Cost
asdasd2	33
asdasd23	33
asdasd233	33
asdasd2333	33
fdgdfgdfg	33
fdgdfgdfgdfg	33
test	33
test2	33
test2	33
test2	33
dummy1	22
exptest2	55

< >

< >

Delete

All Items

Total

407

☐ CheckBox

4.Data from multiple dates

Here we can set two fields of date and we will get all the data in between that date.

My Expense Tracker

Expense

Visualizer

Add Expense Information Here.

Item

Cost

Utility

▼

17-02-2022

15

Add

☐ Single Day ☒ Multi Day

From

15

To

15

Go

Item	Cost
asdasd2	33
asdasd23	33
asdasd233	33
asdasd2333	33
fdgdfgdfg	33
fdgdfgdfgdfg	33
test2	33
test2	33
exptest2	55

< >

< >

Delete

All Items

Total

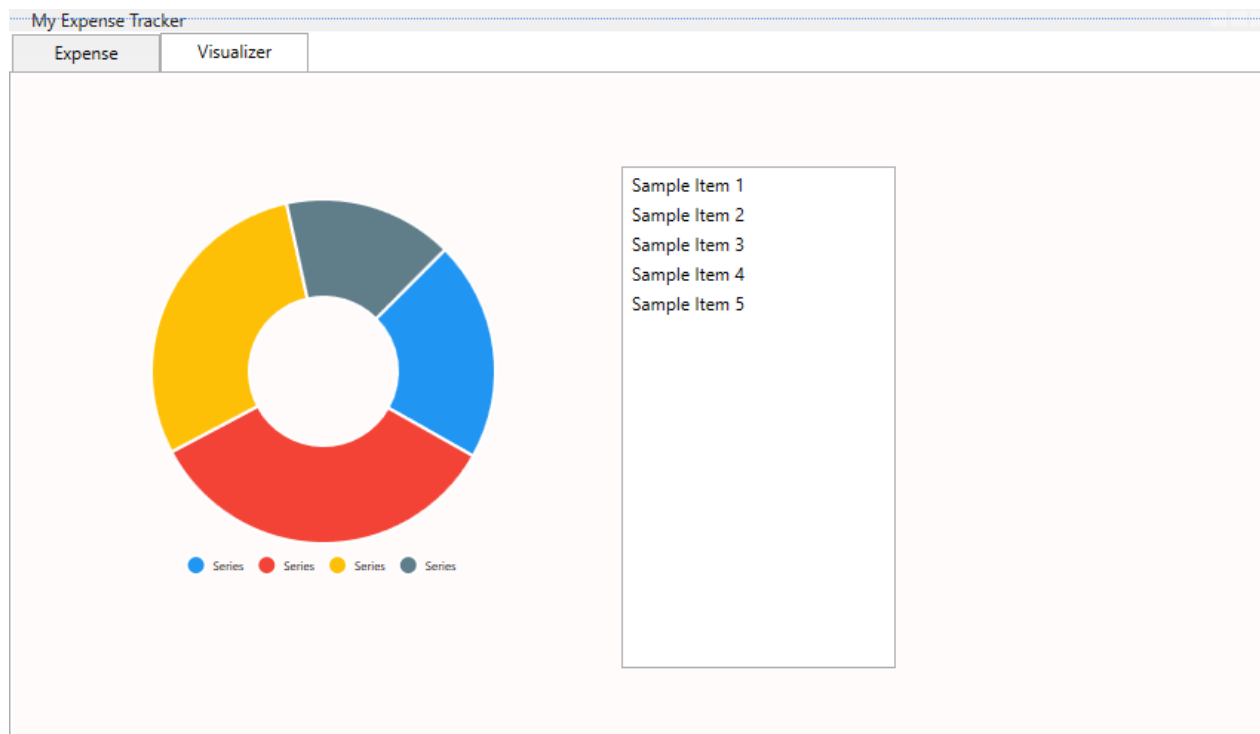
319

☐ CheckBox

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5.Visualizer tab

Here we can visualize the data in the piechart form.



From ISO Perspective

Effectiveness

The use case of the software is accomplished where one can save and retrieve their information about daily expenses

Efficiency

I have tried to make every scene count have gone through extensive data checks at every place.

There are descriptions given at each title so that it can be easy to use and know where to put the information

Satisfaction

The database implementation was very satisfactory. It made the software easy to handle and data retentive. And the library rich WPS is a great addition to my languages

Outcomes and conclusions

In all, I think the software reached its goals where users need to put and retrieve data from the software and know about their finance. But it also leaves much more to desire. I fell short on time and was unable to find a workaround to get an animated chart in the WPS. I mostly took a functional approach in this project rather than taking my usual modular approach as I was new to the language and this idea. I also wanted to add a searching mechanism using just the name of data but was unable to do so because of a system error. I would further like to expand on the features in the near future.

Self-reflection

If I had to describe the whole software-making process in word then it would be that it was very informative. I had only used firebase's real-time database and just didn't get around to SQL. this project helped me learn a lot about windows applications. I was always focused on web applications but never knew that visual studio had such a great library and user support. Intellisense is a great feature that helps a lot while creating any project. at first, I thought it was a bit of a hassle but as I learned more about WPS programming I understood how great this feature is.

As database implementation was not my forte it took a lot of time to learn many great new things. but in the end, it was all worth it. Not only did I learn to get around with c# I also got to see some great properties of XAML. If I could do this whole project again I will do many . I think I have learned a lot in this module under the guidance of Prof. Dr. Mohammed Yass. I have confidence now that given time I can make many nice applications in WPF.

I hope to get around 1,8 in this module because of all the things I have learned in this course.