

Financial Planning Tool Project Plan

Project Plan Milestone 4

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MSCI 100- Management Engineering Concepts

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Today's youth have many troubles managing their finances due to their limited knowledge and education on the subject. This is especially concerning for university students as they are expected to be independent and keep up with their own payments for the first time, which is a drastic change in many people's lives. My financial planning tool is being created to resolve this issue by creating a low maintenance, yet high performing financial planning tool that would be able to display all of the students financial data. I plan to create this tool using my knowledge in VBA and different excel features in order to provide students with a visually appealing and efficient organizer. Through this project, students will be able to view all of their upcoming payments, income, expenditures, and savings, therefore lessening their financial management stress.

Input:

Students will be able to input all of their financial information such as their income, expenses, savings, and entertainment funds. Students will also have the flexibility to enter this data with respect to a weekly, biweekly, or monthly basis. It is necessary that this section of the project is user-friendly and has a good user interface to allow more interaction between students and mitigate stresses. Furthermore, we can make the input process more appealing by separating the different categories (income, expenditures, savings, and leisure) into different forms so that students don't get too overwhelmed.

Steps	Description	Estimated Time
Form to collect data	Collect financial data from students through a form <ul style="list-style-type: none"> - Students will have the choice to enter their data with their choice of time frame (ex. weekly income vs. = income vs. monthly income.) 	2 hour
Creating Income Spreadsheet	Students will input their category of income (ex. coop, investments, part-time job) and input the amount of money they receive from each category <ul style="list-style-type: none"> - Students will be able to pick their choice of time frame 	1.5 hour
Creating Spending Spreadsheet	Students will input their category of expenses (ex. rent, food, tuition) and input the amount of money that needs to be spent on each category <ul style="list-style-type: none"> - Students will be able to pick their choice of time frame 	1.5 hour
Creating Savings Spreadsheet	Students can either pick: <ul style="list-style-type: none"> - A certain % of their monthly income that they would like to dedicate to their savings funds - A certain numerical value/portion from their income to dedicate to their savings funds 	1 hour

	Students will also have the choice to dedicate their total left over income to be put into their savings funds	
Creating Recreation Spreadsheet	Students can either pick: <ul style="list-style-type: none"> - A certain % of their monthly income that they would like to dedicate to their leisure funds - A certain numerical value/portion from their income to dedicate to their leisure funds Students will also have the choice to dedicate their total left over income to be put into their leisure funds	1 hour
Goals Spreadsheet	Allow users to input their spending, saving, and other funds' goals. <ul style="list-style-type: none"> - A macro assigned button will then let them know if they are on track, over, or under their goal for the month 	0.5 hour

Functionalities:

To collect data: Students will be able to press a button to open a data entry form where students can input their financial data. Financial data includes their income and expenses (it will include the qualitative labels and quantitative data). The form will also have a drop down menu that allows students to pick what time frame they would like to choose.

Spreadsheets: The data will be absolutely referenced (through the use of macros for automation purposes) into numerous worksheets for students to have clear view of their finances. This information will also be absolutely referenced into a pivot table (this will be discussed further in the output section of this project plan).

Calculating:

The “behind the scenes” part of this project will deal with all of the summations and calculations needed to allow this project to run smoothly. It is important that these processes are optimized rather than having numerous repeated tasks. The automation of these processes will be done through the use of macros in order to bypass the manual and repetitive tasks. The macros will be used to calculate their total monthly income, total expenditures, and total savings and recreation funds. Furthermore, all of these values will be referenced from their individual spreadsheets, onto the large and final spreadsheet.

Steps	Description	Estimated Time
Calculate total income	Add all of the students incomes together from different sources	2 hours
Calculate total spending	Add all of the students different expenditures together	2 hours
Calculate total savings	<ul style="list-style-type: none"> - If student requested their savings amount to be determined by a percentage of their income, then calculate the amount of money that will be deducted from their income and go into their savings account - If student requested their savings amount to be determined by a fixed numerical value, there are no next steps needed. - If student decides to dedicate their total left over income into their savings funds, then calculate the total net income by subtracting all of the expenditures. 	1.5 hour
Calculate total recreation funds	<ul style="list-style-type: none"> - If student requested their recreation funds to be determined by a percentage of their income, then calculate the amount of money that will be deducted from their income and go into their savings account - If student requested their recreation funds to be determined by a fixed numerical value, there are no next steps needed. - If student decides to dedicate their total left over income into their recreation funds, then calculate the total net income by subtracting all of the expenditures. 	1.5 hour
Determine if financial goals are reached	<ul style="list-style-type: none"> - Based on quantitative goal input, reference the 4 spreadsheets related to the categories of funds and create a macro assigned button that will let user know if their goals have been reached 	1.5 hour

Note: These summation processes can be done through the use of macros

Functionalities:

For all of the calculations, the totals will be calculated on the time division basis that they choose.

They will also have the option to change the time division factor through a drop down menu on the form and therefore there will be calculations done for every time division factor, should the user want to change it at any time and view their finances from a different time perspective (this can be done through if statements).

The calculations will be outputted into their respective worksheets and pivot charts, furthermore, the form will output the total amount of money they have leftover. This is especially useful as students will be able to edit their data in order to determine what different incomes and saving/recreation fractions will allow for different leftover incomes.

Students will also have a drop down menu in the form to choose where they want their left over income to go to. They will have the option of dedicating it to their savings or recreation funds.

Output:

It is necessary for the output of the financial planning tool to be easily comprehensible, visually appealing, and efficient. We will reference all of the inputted data and the data calculated from the processes step into one final spreadsheet that users can refer to. Furthermore, their total data will be collected and illustrated through a pie chart, showing where the percentages of their income is going into, and a bar graph, showing the same thing using numerical values.

Steps	Description	Estimated Time
Create master spreadsheet	Collect inputted information from the category spreadsheets, and collect calculated totals, and display them into one final master spreadsheet <ul style="list-style-type: none">- For a more detailed and informative spreadsheet, we will include the subcategories in the final spreadsheet (ex. For the income section, we will have all of the sources of income and the total income listed.)	3 hours
Create pie chart	A pie chart will be created displaying how their income will be divided (this data will be represented in percentages)	1 hour
Create bar graph	A bar graph will be created displaying how their income will be divided (this data will be represented in numerical values)	1 hour
Create button that outputs goal status	Create a macros assigned button that will display a message stating whether the user's goal has been reached or not.	1 hour

Note: These collection and referencing processes can be automated through macros

Functionality	Change	Reason
Financial Advice Button	<p>There was an addition of a financial advice button that is specific to advising the student to save at least 25% person for their income.</p> <ul style="list-style-type: none"> - The user inputs their start and end date of when they want financial advice, and a message box is outputted stating what percentage of their income is going into their savings (this is also represented as a numerical number for user convenience.) These calculations have been done using if and summation functions 	<p>This will help users quantitatively understand the amount that they are saving, expressed as a percentage and numerical value. Furthermore, it will allow users to visualize whether they are dedicating too little of their money into savings, or whether they are on the right track. A graph illustrating the amount that the user is saving (compared to their income) within the date they entered pops up to visually represent and compare their incomes vs. savings.</p>
Goal Progress Tracker	<p>A goal tracker is now included within this tool, where users can input their financial goals, such as saving up for a car, rent, or electronic devices, and they can also input the percentage of their savings that they would like to dedicate to each goal. In order to improve the user experience, the goal tracker now allows users to input different start and end dates for each goal. Furthermore, if the user was to enter a financial goal of saving up for a computer, and dedicate 20% of their savings for this goal, the goal tracker sums their total</p>	<p>Students will now be able to keep track of all of their financial goals and achievements, as well as keep them all in one worksheet, while having a different start and end date for each one (which is especially useful for when users want to make a certain purchase more urgently than another). Students can also use this tool to keep track of general payments such as</p>

	<p>savings within this time period and calculates how much money they currently have saved up for this goal, with respect to the dedicated saving percentage that the user inputted.</p>	<p>their rent and phone plan, and ensure that they will have enough saved up for these bills, given their saving percentage dedication. Since this tracker calculates and outputs how much money a student has saved for each item, the user will now be able to see whether they can afford each purchase or not.</p>
Output Sheet and condensed graph	<p>Originally, the output worksheet was supposed to show the user a graph containing every item that they have entered through the initial entry form. This would mean that every item, for every category would have been represented in this graph, although, this would have been very cluttered and counterproductive for the user. Instead the output sheet now shows the user all of their inputs within a given date that the user enters, as well as illustrating their data through a bar graph, where each bar represents the different categories, rather than each individual item.</p>	<p>The original output sheet, where the graph was to represent every item, for every category was too cluttered, and may cause student even more stress and confusion about their finances. Therefore, the current output sheet sums all of the user data per category and represents them based on category. This allows users to now graphically see the difference in where their money is allocated, for example, how much of their money is going into their savings vs. expenses.</p>

Functionalities:

The form from the input section of this project will be absolutely referenced (through the use of recorded macros in order to speed up and automate the process) into a pivot chart in order to have a very organized and editable user interface. A pivot chart is an optimal output choice as it allows students to decide what categories they would like to view, as well as sort and filter all of their data to their liking. Furthermore, a pie and graph chart will be created from this pivot chart.

The financial planning project will severely increase financial productivity and management in a student's life. Through the use of excel and VBA programming, we have access to many tools such as macros, buttons, forms, and pivot charts that help develop a useful financial planning tool for students to manage their incomes and finances. A simple yet effective project such as this one will allow a student to optimize their time spent on their finances and thereby mitigating their stresses and unnecessary worries.