1. For the following code snippets, identify the function prototype, the function definition, and the call to the function.

//function prototype

double Compute(double, double);

// function definition

double Compute(double gross\_pay, double tax\_rate)

{…}

//call to the function

Tax = Compute(gross\_pay, tax\_rate);

1. What order should the format for the layout of a function be?

**Return Type**: Specifies the data type of the value that the function will return (e.g., int, float, void).

**Function Name**: The identifier used to call the function.

**Parameter List**: Enclosed in parentheses (), it defines the input parameters the function accepts, including their data types and names. If the function takes no arguments, the parentheses are left empty.

**Function Body**: Enclosed in curly braces {}, it contains the statements that define the function's actions.

1. Many companies offer commission to their sales staff. What do you suggest to modify your program to include all employees and therefore calculate gross commission?

Create a function that calculate the amount gross commission that the employee receives. This function returns double, name commission, parameter (int number, double salary, double gross\_sales), function that calculates if the employe made a sale of $15000 and above gets 5% commission and below $15000 will get $200 commission.

1. Construct an MS Excel Spreadsheet that shows correlation to the calculations and results obtained from your program.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***name*** | ***ID*** | ***salary*** | ***Gross Sales*** | ***Activity Month*** | **co**  ***Commission*** | ***Gross Salary*** | ***Commission type*** |
| Stacy | 837 | $1,800 | $12,000 | September | $200 | $2000 | fixed |
| Charles | 858 | $2500 | $15000 | August | $200 | $2700 | fixed |
| David | 345 | $2800 | $20000 | January | $1000 | $3800 | 5% of gross sales |
| Rose | 798 | $3000 | $25000 | February | $1250 | $4250 | 5% of gross sales |

1. Construct a flow chart for your program and place below.

Declare local variables

Welcoming message and Taking inputs form the user

Decision: sales amount

Is sales amount greater than $15000?

Return 5% of gross sales commission

Return fixed commission of $200

Yes

No

Display the commission report

1. What have you learned from performing and coding for this application?

Through coding this application, I've gained a deeper understanding of applying business logic in programming, particularly in calculating commission based on sales. I learned how to break down a task into manageable components, such as using functions to separate calculations and how to handle user input for different data types like strings and numbers. This project also emphasized the importance of conditional logic in decision-making and reinforced the significance of creating clear, structured reports. Additionally, I realized the value of integrating code with tools like Excel for visualizing data and improving user interaction, while also recognizing the need for input validation and error handling to enhance the robustness of the application.