Student name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Seminar group: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Complete Table below:

Specify all functions you have worked on in Tasks A and B in the sub-brief and complete the table below. Complete the table below for each function by filling the cells of the table. Add as many rows as necessary to include all the functions you have contributed to. An example is provided below for your guidance.

*Code Example:*

*def add\_numbers(a, b):*

*return a + b*

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| --- | --- | --- | --- | --- |
| **Function name** | **What is the function input/output?** | **Explain the logic of the function.** | **How did you test it?** | **What are the challenges of this function?** |
| add\_numbers | Inputs: a, b (2 real numbers)  Output: a+b (1 real number) | Adds two numbers and return the sum of them | Tests (positive, negative, mixed signs).  (4, 3) 🡪 7;  (-4, 1) 🡪 -3;  (-1,-2) 🡪 -3. | This function raised error when (a,b) are strings or complex numbers. Etc. |
| calculator | Inputs: num1, num2 (integers)  Operator (string)  Output: answer of calculation (integer) | Works as a calculator. Can perform mathematical calculations from two numbers entered into the function | Tests (negative numbers, real numbers) Invalid operator / symbols. | Zero errors when diving by zero. Used try and except functions. |
| max\_of\_three | Inputs: num1, num2, num3 (integers, real numbers)  Output: answer (integer) | Compares two numbers and outputs the largest | Tests (input large numbers and small numbers | Know the use of the max function |
| winning\_numbers | Inputs: user\_list (integer)  Outputs: prize (string and integer) | Compares the user list with the existing list and calculates a score based on how many numbers match | Inputted wrong numbers and correct numbers | Duplicate numbers still returned First. I used set() function to remove duplicates. |
| Sum\_of\_evens | Inputs: min\_value, max\_vlaue(integers)  Outputs: total(integer) | Takes inputs and adds up all the even numbers between the numbers. | Input large and small numbers and strings | Incorrect inputs showed an error. |
| Is\_prime | Inputs: num (integer)  Outputs: output (Boolean) | If the number is larger than 1 it does modulo division for all numbers from 2 up to the inputted number. If any are 0 then the loop breaks and it is declared a prime number | Input multiple prime numbers and non-prime numbers | The function raised an error when strings or other datatypes are entered. |
| Are\_anagrams | Inputs: str1, str2 (strings)  Outputs: result (Boolean) | To compare two words and return True if they are anagrams | Test using anagram words and words that aren’t anagrams. Also words that have duplicate letters | If ither data types are entered. If the inputs have duplicate letters the function would return true. |
| Calculate\_average | Inputs: numbers (list)  Outputs: average (integer) | Adds together all unmbers in the list and divides the total by the length of the list. | Add small and large numbers and compared result to the answer form a calculator. | To add all the separate items of the list together |
| Calculate\_weekly\_pay | Inputs:hours\_worked(integer)  Outputs: total\_pay(integer) | Multiplies the normal rate by the hours under 36 hour and multiplies the overtime rate for hours over 35 hours. Returns the pay for the inputted hours. | Inputted hours under 36 and inputted hours over 35 . Calculate the correct answer separately | Adding the pay for the hours over the threshold to the one under the threshold. |

1. Provide below screenshots to your GitHub repository and to your committed messages showing your progress properly.

*-------------- Provide all screenshots properly showing your progress in GitHub here --------------*

1. Provide your GitHub link below:

-----------------------*Your GitHub link*--------------------------------------

1. List all references, including AI-generated tools, if applicable. If you used AI-generated tools, specify the name of the tool, provide screenshots/texts of the input/output, and explain how it was used in your project submission.

**References:**

**[1].**

**[2].**

**[3].**

**Referencing Usage of AI-generated tools:**

|  |  |  |  |
| --- | --- | --- | --- |
| AI-generated tool | Input | Output | How is it used? |
|  |  |  |  |
|  |  |  |  |