**Learner Assignment Submission Format**

**Learner Details**

* **Name: Nikil G S**
* **Enrollment Number:----**
* **Batch / Class:**
* **Assignment: (Bridge Course Day 1)**
* **Date of Submission:28/6/2025**

**1st question**

**Problem Solving Activity 1.1**

1. **Program Statement**

I learned from this question. I need to write a program on our age and name and take as a input. I will write a program output like a

“HELLO NIKIL, YOU ARE 22 YEARS OLD.”

1. **Algorithm**
2. start
3. use the prompt to enter the user name
4. store the name in the variable
5. use the prompt to enter the user age
6. store the age in the variable
7. display the out like “ HELLO NIKIL, YOU ARE 22 YEAR OLD.”
8. End
9. **Pseudocode**

1 start

2 display “Enter your name”

3 read name

4 display “Enter your age”

5 read age

6 set greeting to “hello Nikil you are 22 year old”

7 End

**4. Program Code**

**let name = prompt("Enter your name");**

**let age = prompt ("Enter your age");**

**alert("Hello " + name + ", you are " + age + " years old.");**

**5. Test Cases**

Present a table of test cases you used to validate your program. Include a mix of regular, boundary, and edge cases.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case No. | Input | Expected Output | Actual Output | Status (Pass/Fail) |
| 1 | Nikil | “hello Nikil you are 22 year old” | “hello Nikil you are 22 year old” | Pass |
| 2 | Age |  |  |  |
| 3 |  |  |  |  |

**6. Screenshots of Output**

**Enter your name Nikil**

**Enter your age 22**

**Hello Nikil, you are 22 years old.**

**7. Observation / Reflection**

my challenges are, I made mistake in write the program in 3rd line. I was wrote greeting in capital letter without proper indications.

**2nd question**

**Problem Solving Activity 1.2**

I learned from this question. I need to write a program on two numbers and convert their integers and their sum, product and difference

**Algorithm**

1. Start
2. Take two numbers as input
3. Convert their integers
4. Calculate the sum and product of each number
5. Print their final result
6. End

**Pseudocode**

1. Start
2. Display the two numbers
3. Display their converted integer
4. Analyze above (2 and 3)
5. Set what we calculate
6. End

**Program Code**

let input1 = prompt("Enter the first number");

let input2 = prompt("Enter the second number");

let num1 = parseInt(input1);

let num2 = parseInt(input2);

let sum = num1 + num2;

let product = num1 \* num2;

alert("sum" + sum);

alert("product" + product);

**Test Cases**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Input | Expected Output | Actual Output | Status (Pass/Fail) |
| 1 | First number 5 | Sum = 11  Product = 30 | Sum = 11  Product = 30 | Pass |
| 2 | Second number 6 |  |  |  |
| 3 |  |  |  |  |

**Screenshots of Output**

Enter the first number5

Enter the second number6

sum11

product30

**Observation / Reflection**

I made mistake in printing the result

3rd question

**Program Statement**

I learned from this question. Convert these "123",123.45,123,True,"Hello" data types into computer language or identify the particular statement

**Algorithm**

|  |  |
| --- | --- |
| "123" | string |

|  |  |
| --- | --- |
| 123.45 | float |

|  |  |
| --- | --- |
| 123 | number |

|  |  |
| --- | --- |
| true | Boolean |
| “Hello” | string |

|  |  |
| --- | --- |
| **Observation / Reflection**  I don’t have any challenges |  |

**4th question**

**Program Statement**

We need converts Celsius to Fahrenheit by using the formula

**Algorithm**

1. Start
2. Declare a variable to store Celsius temperature
3. Use the formula F = (C × 9/5) + 32 to convert Celsius to Fahrenheit
4. Store the result in a variable
5. Display the Fahrenheit temperature
6. End

**Pseudocode**

takes a temperature in Celsius as input, applies the conversion formula, and returns the equivalent temperature in Fahrenheit**.**

**Program Code**

let celsius = 30; // You can change this value

let fahrenheit = (celsius \* 9/5) + 32;

console.log(celsius + "°C is equal to " + fahrenheit + "°F");

**Test Cases**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Input | Expected Output | Actual Output | Status (Pass/Fail) |
| 1 | Celsius=30 | 30°C is equal to 86°F | 30°C is equal to 86°F | pass |
| 2 |  |  |  |  |
| 3 |  |  |  |  |

**Screenshots of Output**

30°C is equal to 86°F

**Observation / Reflection**

The function handles both positive and negative Celsius values, as well as extreme temperatures like 0 and 100 degrees Celsius.

**5th quetion**

**Program Statement**

Create a basic calculator that performs addition, subtraction, multiplication, and division between two user-provided numbers.

**Algorithm**

1. Start

2. Input two numbers, num1 and num2, from the user.

3. Input an operator (+, -, \*, /) from the user.

4. Check the operator:

5. Display the result (if valid).

6. End

**Pseudocode**

1. START
2. Input num1
3. Input operator
4. End

**Program Code**

let num1 = parseFloat(prompt("Enter the first number:"));

let num2 = parseFloat(prompt("Enter the second number:"));

let operator = prompt("Enter operator (+, -, \*, /):");

let result;

if (operator === "+") {

result = num1 + num2;

} else if (operator === "-") {

result = num1 - num2;

} else if (operator === "\*") {

result = num1 \* num2;

} else if (operator === "/") {

if (num2 !== 0) {

result = num1 / num2;

} else {

result = "Error: Division by zero";

}

} else {

result = "Invalid operator";

}

console.log("Result: " + result);

**Test Cases**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Input | Expected Output | Actual Output | Status (Pass/Fail) |
| 1 | 3 (operator +) | 8 | 8 | Pass |
| 2 | 5 | - | - |  |
| 3 |  |  |  |  |

**Screenshots of Output**

Enter the first number:3

Enter the second number:5

Enter operator (+, -, \*, /):+

Result:

**Observation**

he calculator program works as expected, performing addition, subtraction, multiplication, and division operations correctly. It handles division by zero and invalid operators, providing informative error messages