

# Assignment 1: Statements

## Part 1: Input/Output

### Task 1

Write a Python program that asks the user for their name and age, and then prints a message using the input values.

```
1 name = input("Enter your name: ")
2 age = input("Enter your age: ")
3 print(f"Hello {name}, you are {age} years old!")
4 print("Hello", name, "you are", age, "years old!", sep="^-^", end="!!!")
```

## Part 2: Variables and Naming Rules

### Task 2

Identify the errors in the following variable assignments and correct them:

```
1 # Incorrect code:
2 lname = "Alice"
3 def = "Reserved"
4 user-name = "John"
```

## Part 3: String Basics

### Task 3

Write a Python program to demonstrate the use of quotation marks, string length, and concatenation.

```
1 # Quotation marks:
2 single_quote = 'This is a string.'
3 double_quote = "This is also a string."
4
5 # String length:
6 message = "Hello, Python!"
7 print(len(message))
8
9 # String concatenation:
10 first_name = "Alice"
11 last_name = "Johnson"
12 full_name = first_name + " " + last_name
13 print(full_name)
```

## Part 4: Number Basics

### Task 4

Write a Python program to demonstrate data types, basic arithmetic operations, and order of precedence.

```
1 # Data types:
2 integer_number = 10
3 float_number = 5.5
4 print(type(integer_number))
5 print(type(float_number))
6
7 # Basic arithmetic operations:
8 addition = 5 + 3
9 subtraction = 10 - 4
10 multiplication = 7 * 6
11 division = 15 / 3
12
13 print(addition, subtraction, multiplication, division)
14
15 # Order of precedence:
16 # Exponentiation -> Multiplication -> Addition -> Subtraction
17 result = 5 + 2 * 3 ** 2 - 1
18 print(result)
```

## Part 5: Error Handling

### Task 5

Explain what an error is, identify which line of code contains an error, and provide a solution.

#### Task 5.1: Syntax Error

```
1 # Incorrect code:
2 print("Hello World!"
```

Answer

#### Task 5.2: NameError

```
1 # Incorrect code:
2 print(variable)
3 variable = 5
```

Answer

### Task 5.3: ZeroDivisionError

```
1 # Incorrect code:  
2 result = 10 / 0
```

Answer

### Task 5.4: TypeError

```
1 # input() always return a string  
2 x = input("Please enter a number from 1-10: ") # int() is used to convert to 'int'  
3 print("Your input is ", x)  
4  
5 y = input("Please enter your second number from 1-10: ")  
6 print("Your second number is ", y)  
7 print()  
8  
9 print("The sum of two numbers is x" + y)  
10 print("The product of two numbers is ", x * y)
```

Answer