Assignment Code: FSD-AG-004

Version Control & Basics of JavaScript | **Assignment**

Instructions: Carefully read each question. Use Google Docs, Microsoft Word, or a similar tool to create a document where you type out each question along with its answer. Save the document as a PDF, and then upload it to the LMS. Please do not zip or archive the files before uploading them. Each question carries 20 marks.

Total Marks: 180

Question 1 : Explain the purpose of version control systems like Git. Why are they essential in modern software development?

Answer:

Question 2: List the typical steps you would follow when working with Git to make changes to a project and share them on GitHub.

Answer:

Question 3: What is the purpose of a `.gitignore` file in a Git repository? Provide an example of how to ignore all `.log` files.

Answer:

Question 4: You are currently on the `main` branch and want to switch to a branch named `feature-login`. Write the Git command to do this.

Answer:

Question 5: Declare a variable named `age` using `let` and assign it the value 25. Then, update its value to 30.

Answer:

Question 6: Declare a constant named `PI` with the value `3.14159`. Attempting to reassign it should result in an error. Demonstrate this behavior by writing out the outcome.

Answer:

Question 7: You are given the following array:

```
const colors = ["red", "green", "blue", "yellow", "purple"];
```

1. Access and print the first element of the array.
2. Access and print the last element of the array.
3. Access and print the third element of the array.

Answer:

Question 8: Given x = 10 and y = 5, write expressions to:

1. Add x and y
2. Check if x is greater than y
3. Check if x is equal to y

Answer:

Question 9: Identify the data types of the following values:

1. `"Hello"`
2. `42`
3. `true`
4. `undefined`

Answer: