DAY 19: EVENING ASSESSMENT

1. Declare a variable age of type number and assign it a value. Print it.

let age = 25;

console.log(age);

2. Create a variable username of type string and log "Hello, <username>".

let username = "Sahil";

console.log("Hello, " + username);

3. Declare a boolean variable isActive and assign it true. Print its type.

let isActive = true;

console.log(typeof isActive);

4. Create two number variables x and y, assign values, and print their sum.

let x = 10;

let y = 20;

console.log(x + y);

5. Declare a variable colors as an array of strings with three colors. Print the second one.

let colors = ["red", "blue", "green"];

console.log(colors[1]);

6. Create a constant PI with value 3.14 and try reassigning it (observe the error).

const PI = 3.14;

console.log(PI);

7. Write a function greet that takes a name (string) and returns "Hello, <name>".

function greet(name) {

return `Hello, ${name}`;

}

console.log(greet("Shreya"));

8. Write a function addNumbers that takes two numbers and returns their sum.

function addNumbers(a, b) {

return a + b;

}

console.log(addNumbers(3, 7));

9. Create a function isEven that takes a number and returns true if it’s even, else false.

function isEven(n) {

return n % 2 === 0;

}

console.log(isEven(10));

console.log(isEven(7));

10. Write a function multiply with default parameter b = 5 that multiplies a \* b.

function multiply(a, b = 5) {

return a \* b;

}

console.log(multiply(4));

console.log(multiply(4, 3));

11. Create an arrow function square that takes a number and returns its square.

const square = (n) => n \* n;

console.log(square(6));

12. Write a function printDetails that accepts a name (string) and age (number) and prints:

"Name: <name>, Age: <age>".

function printDetails(name, age) {

console.log(`Name: ${name}, Age: ${age}`);

}

printDetails("Shreya", 22);

13. Create a class Person with name and age properties, and a method introduce() that logs

"Hi, I'm <name> and I'm <age> years old.".

class Person {

name;

age;

introduce() {

console.log(`Hi, I'm ${this.name} and I'm ${this.age} years old.`);

}

}

let p1 = new Person();

p1.name = "shreya";

p1.age = 22;

p1.introduce();

14. Add a constructor to Person that initializes name and age.

class Person {

constructor(name, age) {

this.name = name;

this.age = age;

}

introduce() {

console.log(`Hi, I'm ${this.name} and I'm ${this.age} years old.`);

}

}

let p2 = new Person("Shreya", 25);

p2.introduce();

15. Create a class Car with properties brand and year, and a method displayInfo() that logs

"Car: <brand>, Year: <year>".

class Car {

constructor(brand, year) {

this.brand = brand;

this.year = year;

}

displayInfo() {

console.log(`Car: ${this.brand}, Year: ${this.year}`);

}

}

let car1 = new Car("Toyota", 2023);

car1.displayInfo();

16. Create a class Rectangle with properties width and height and a method getArea() that

returns area.

class Rectangle {

constructor(width, height) {

this.width = width;

this.height = height;

}

getArea() {

return this.width \* this.height;

}

}

let rect = new Rectangle(5, 10);

console.log(rect.getArea());

17. Create a class Student that has name and grade, and a method displayGrade() that logs

"Student <name> has grade <grade>".

class Student {

constructor(name, grade) {

this.name = name;

this.grade = grade;

}

displayGrade() {

console.log(`Student ${this.name} has grade ${this.grade}`);

}

}

let s1 = new Student("Aarav", "A");

s1.displayGrade();

18. Create a class BankAccount with accountNumber and balance, and a method

deposit(amount) that adds to balance and logs the new balance.

class BankAccount {

constructor(accountNumber, balance) {

this.accountNumber = accountNumber;

this.balance = balance;

}

deposit(amount) {

this.balance += amount;

console.log(`New balance: ${this.balance}`);

}

}

let acc = new BankAccount("123456", 1000);

acc.deposit(500);