**Question 1 Answer:**

// Create an object representing a car

const car = {

make: "Toyota",

model: "Camry",

year: 2022

};

// Function to display all properties of the car

function displayCarProperties(car) {

for (const property in car) {

console.log(`${property}: ${car[property]}`);

}

}

displayCarProperties(car);

**Question 2 Answer:**

// Define an object representing a student's information

const student = {

name: "John",

age: 18,

grade: "A"

};

// Method to update the student's grade

function updateGrade(newGrade) {

student.grade = newGrade;

}

updateGrade("B");

console.log(student);

**Question 3:**

// Function to return the number of properties in an object

function countProperties(obj) {

return Object.keys(obj).length;

}

const exampleObject = { a: 1, b: 2, c: 3 };

console.log(countProperties(exampleObject));

**Question 4 Answer:**

// Function to check if an object has a specified property

function hasProperty(obj, propertyName) {

return obj.hasOwnProperty(propertyName).;

}

const exampleObject = { name: "Alice", age: 25 };

console.log(hasProperty(exampleObject, "age")); // true

console.log(hasProperty(exampleObject, "email")); // false

**Question 5 Answer:**

// Program to calculate the area of a circle

const radius = 5;

const area = Math.PI \* Math.pow(radius, 2);

console.log(area);

**Question 6 Answer:**

// Function to reverse a string

function reverseString(input) {

return input.split('').reverse().join('''');

}

const originalString = "Hello, world!";

const reversedString = reverseString(originalString);

console.log(reversedString);

**Question 7 Answer:**

// Program using a Map to store user information

const userMap = new Map();

function addUser(name, age, email) {

const userInfo = { age, email };

userMap.set(name, userInfo);

}

function updateUser(name, age, email) {

if (userMap.has(name)) {

const userInfo = userMap.get(name);

userInfo.age = age;

userInfo.email = email;

}

}

function deleteUser(name) {

userMap.delete(name);

}

addUser("Alice", 30, "alice@example.com");

addUser("Bob", 25, "bob@example.com");

console.log(userMap);

updateUser("Alice", 31, "newemail@example.com");

console.log(userMap);

deleteUser("Bob");

console.log(userMap);