

Assignment 1: Create a JavaScript object representing a user with properties for name, email, and age. Write functions that manipulate this object, such as changing the name, updating the email, and calculating the user's birth year.

```
// Create a JavaScript object representing a user

let user = {

  name: "John Doe",

  email: "john.doe@example.com",

  age: 30,

  // Function to update the user's name

  changeName: function(newName) {

    this.name = newName;

  },

  // Function to update the user's email

  updateEmail: function(newEmail) {

    this.email = newEmail;

  },

  // Function to calculate the user's birth year based on current year

  calculateBirthYear: function() {

    let currentYear = new Date().getFullYear();

    return currentYear - this.age;

  }

};


// Example usage:

console.log("Original User:");

console.log(user);
```

```
// Changing the user's name

user.changeName("Jane Smith");

console.log("\nUser after changing name:");

console.log(user);
```

```
// Updating the user's email

user.updateEmail("jane.smith@example.com");

console.log("\nUser after updating email:");

console.log(user);
```

```
// Calculating the user's birth year

let birthYear = user.calculateBirthYear();

console.log("\nUser's birth year:", birthYear);
```

Assignment 2: Use regular expressions in JavaScript to validate the email address entered in the form. It should check for the correct format of the email and display a message to the user if the format is incorrect.

```
function validateEmail(email) {

    // Regular expression for basic email validation

    const re = /^[^\\s@]+@[^\\s@]+\\.[^\\s@]+$/;

    return re.test(email);

}
```

```
// Example usage:

let email1 = "john.doe@example.com";

let email2 = "invalid_email.com";
```

```
console.log(`${email1} is valid: ${validateEmail(email1)} `); // true
```

```
console.log(`${email2} is valid: ${validateEmail(email2)} `); // false
```