Create User Account

Advance Web Development

Time: 60 mins

Introduction

In this class, the student/s will learn to sign up to user account and store the user details for further user authentication.

JavaScript Commands & DOM Methods Introduced

- localStorage.getItem("keyname");   Gets the value of the "keyname" from the local storage

- localStorage.setItem("keyname", "value");   Stores the "value" in the "keyname" in the local storage.

- JSON.parseJSON.parse()   Converts string to object

- JSON.stringify()   Converts object to string

- condition ? expressionIfTrue : expressionIfFalse   Checks if the condition is True, if yes executes expressionIfTrue else executes expressionIfFalse

- location.replace("URL");   Replaces the current resource with the one at the provided URL

Vocabulary

- **JavaScript Object Notation (JSON)** is used to interchange the data format to transfer data between web applications.
- **Conditional ternary operato**r is the only JavaScript operator that takes three operands: a condition followed by a question mark (?), then an expression to execute if the condition is true followed by a colon (:), and finally the expression to execute if the condition is false. This operator is frequently used as an alternative to an if… else statement.

Learning Objectives

Student/s should be able to:
- *Recall* DOM method to get element by ID.
- *Explain* checking local storage and creating JavaScript Objects.

- **Explain** how to sign up the user.
- **Display** welcome message on user sign up.

Activities

1. **Class Narrative:** *(2 mins)*
   - Brief the student/s that the user should be able to sign up for VR Gamers once their login credentials have been validated.

2. **Concept Introduction Activity:** *(5 mins)*
   - Let the student/s play the explore-activity and observe that on signing up we are redirected to the website and the user details reflect on the navigation bar.
   - Explain the need of storage and introduce different storages and lead to problem statement that students will learn to use browser's local storage.
   - Using the slides, explain how:
     - Check and Create JavaScript Objects
     - Sign Up the User
     - Welcome User on Sign Up

3. **Activity 1: Check and Create JavaScript Objects:** *(12 mins)*

   Teacher Activity: *(6 mins)*
   - Introduce to the student/s that the getItem() and setItem() is used to read and write the values to/from the local storage.
   - Explain to the student/s the use of JSON to interchange the data format between web applications. Highlight the use of JSON.parse() and JSON.stringify() to transfer data between JavaScript objects and local storage data types.
   - Explain how to check the local storage and create an object in the local storage to store the user details.

   Student Activity: *(6 mins)*
   - Guide the student/s to check and create an object in the local storage to store the user details.

4. **Activity 2: Sign Up the User:** *(10 mins)*

   Teacher Activity: *(5 mins)*
   - Highlight to the student/s to add the user details in local storage and save on signing up to the website.

   Student Activity: *(5 mins)*
   - Guide the student/s to add the sign up functionality by storing the user details.

   Probing question: How can we convert JavaScript objects to JSON string?
   Expected answer: JSON.stringify()

5. **Activity 3: Welcome User on Sign Up:** *(10 mins)*

   Teacher Activity: *(5 mins)*
   - Make the students notice that the sign in button is visible even after signing up and the sign out button is missing.

- Lead the students to update the navigation bar by adding the welcome message for the user, adding sign out button and removing sign in button.

    Student Activity: *(5 mins)*
- Guide the students to add the updateNavbar() function to welcome the user and replace the sign out button with the sign in button on signing up.

6. **Introduce the Post class project:** *(2 min)*
    - Create a product object and store the product details in the local storage.

7. **Test and Summarize the class learnings:** *(5 mins)*
    - Check for understanding through quizzes and summarize learning after respective missions.
    - Summarize the overall class learning towards the end of the class.

8. **Additional activities:**
    - Encourage the student/s to check if the user has entered the country code and phone number and show an error message on wrong entries.
    - Encourage the student/s to check and store all the users who have subscribed and display them on the console.

9. **State the Next Class Objective:** *(1 min)*
    - We will learn to authenticate the users before allowing them to sign in.

U.S. Standards:

CSTA:

Links Table		
Activity	**Activity Name**	**Link**
Class Presentation	Create User Account	https://s3-whjr-curriculum-uploads.whjr.online/77db7ede-b1a4-467b-83a5-8f23111db8fb.html
Explore Activity	Create User Account: Explore-activity link	https://tynker.com/code/view/63bd0819d2abb92cc96db152/
Teacher Activity 1	Check and Create JavaScript Objects	https://tynker.com/code/project/63bd11269666445e96318182
Teacher Activity 1 Solution	Check and Create JavaScript Objects - Solution	https://tynker.com/code/project/63bd114cfdf38d0a243cc532
Student Activity 1	Check and Create JavaScript Objects	https://tynker.com/code/project/63bbafae0c156d3c2475ae42
Teacher Reference: Student Activity 1 Solution	Check and Create JavaScript Objects - Solution	https://tynker.com/code/project/63bd0b63e6925d5796458692

Teacher Activity 2	Sign Up the User	https://tynker.com/code/project/63bd11ded38ba1690e6df172
Teacher Activity 2 Solution	Sign Up the User - Solution	https://tynker.com/code/project/63bd11ff0b406b529732cbe2
Student Activity 2	Sign Up the User	https://tynker.com/code/project/63bd05d67e54fe670c4f19fb
Teacher Reference: Student Activity 2 Solution	Sign Up the User - Solution	https://tynker.com/code/project/63bd0a18b4bc1b7048434962
Student Activity 3	Welcome User on Sign Up	https://tynker.com/code/project/63bd094625e7774561334e82
Teacher Reference: Student Activity 3 Solution	Welcome User on Sign Up - Solution	https://tynker.com/code/project/63bd0819d2abb92cc96db152
Student's Additional Activity 1	Validate Country Code and Phone Number	https://tynker.com/code/project/63c506d8d49bc2680a6ab822
Teacher Reference: Student's Additional Activity 1 Solution	Validate Country Code and Phone Number - Solution	https://tynker.com/code/project/63c505459b5db3241109f472
Student's Additional Activity 2	Add a Subscribe Feature	https://bfs-dev.tynker.com/code/project/63cfd694c6bc88482f48e552
Teacher Reference: Student's Additional Activity 2 Solution	Add a Subscribe Feature - Solution	https://bfs-dev.tynker.com/code/project/63cfcc5b7863dd4b977e38f7
Post Class Project	Save Product Information	https://tynker.com/code/project/63c553c8963ee43ecb2000b2
Teacher Reference: Post Class Project Solution	Save Product Information - Solution	https://tynker.com/code/project/63c54cb0ddb7f86831719242