

Book A Game Slot

Advance Web Development

Time: 60 mins

Introduction

In this class, the student/s will learn to book a game slot after selecting the items on the form and the form is validated. Student/s will also learn to update the booking summary details in the local storage when the user clicks on the Checkout button.

New Commands Introduced

- `onchange="function_name()"` HTML property that calls a function when a user changes the value of the HTML element.
- `array_name.push()` Adds an item to the end of an array.
- `array_name[key] = value` Update a key-value pair of an array.
- `alert("message")` Displays an alert box with a message and an OK button.

Vocabulary

- **Array** is used to store similar key-value pairs together.
Syntax: `var array_name = {"key1": "value1", "key2": "value2", ... }`
The starting index is always 0.
- **this** keyword is used to refer to the current object. In an event, this refers to the element that receives the event.

Learning Objectives

Student/s should be able to:

- **Demonstrate** how to set the values of HTML elements on events.
- **Explain** how to validate the user inputs.
- **Describe** how multiple key-value pairs of data can be stored in local storage using arrays.
- **Create** a functionality for booking the game slots on the VR Gamers website.

Activities

1. Class Narrative: (2 mins)

- Brief the student/s that most products or services offer 24 * 7 facilities for customer convenience. Probe them to share a product or service they booked online.
Expected answer: Flight tickets, movie tickets, classes for Tynker, etc.

2. Concept Introduction Activity: (5 mins)

- Let the student/s play the explore-activity and explore how booking of game slots can be done on the VR Gamers website.
- Let them observe that game slots can be booked by selecting different details on the form and the details selected are updated in the booking summary section. Also, a slot is booked by clicking on the checkout button once validated.
- Using the slides, explain that the student/s will learn:
 - to display selected values
 - to validate selected values
 - to book slot

3. Activity 1: Display Selected Values: (10 mins)

Teacher Activity: (5 mins)

- Let the students observe and answer the event or action that lets toppings be added on the pizza in the gif.
- Explain to the student/s how events are captured on the VR Gamers website.
- Explain to the student/s about predefined events in HTML and how it works using a flowchart.
- Explain using the slides the use of the keyword *this*.
- Explain to the student/s to display the selected slot details in the booking summary section.

Student Activity: (5 mins)

- Guide the student/s to set the values of HTML elements in the booking summary section when details are selected while booking a game slot.

4. Activity 2: Validate Selected Values: (10 mins)

Teacher Activity: (5 mins)

- Lead the student/s to answer that an appropriate pop-up message should be displayed if a user submits an incomplete form.
- Explain to the student/s how to store similar key-value pairs in JavaScript using the `setValue()` function.
- Explain to the student/s how to validate user inputs and show an alert message.

Student Activity: (5 mins)

- Guide the student/s to validate the user inputs.
Probing question: What property in HTML was used to call a function when user input changed?
Expected answer: `onchange`

5. Activity 3: Book a Slot: (10 mins)

Teacher Activity: (4 mins)

- Explain to the student/s the need to store the slot booking details of multiple users and how to store the slot booking details in local storage.
- Explain to the student/s about arrays and how data is added to an array in JavaScript.
- Explain to the student/s how to store the booking details of a user in the local storage.

Student Activity: (6 mins)

- Guide the student/s to add slot details to the booking history.

6. Introduce the Post class project: (2 min)

- Update the profile details of the vendor when the Save button is clicked.

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 display the checkout button only when the form is filled completely.
- Encourage the student/s to add a condition to check whether the user has signed in when the Book Now button is clicked. Redirect the user to the correct page when Book Now and Booking History links are clicked.

9. State the Next Class Objective: (1 min)

- We will learn to create a customer booking history page to help users view their bookings.

U.S. Standards:

CSTA: 2-AP-11, 2-AP-12, 2-AP-13, 2-AP-14, 2-AP-19

Links Table		
Activity	Activity Name	Link
Class Presentation	Book A Game Slot	https://s3-whjr-curriculum-uploads.whjr.online/959c631e-ce55-40a3-af60-b9da1a18b6d1.html
Explore Activity	Book A Game Slot - Explore Activity	https://tynker.com/code/view/63ddb678a120d61c90dba32/
Teacher Activity 1	Display Selected Values	https://tynker.com/code/project/63d8f273d9a7c214be750772
Teacher Activity 1 Solution	Display Selected Values - Solution	https://tynker.com/code/project/63d8f1a8f3790f524b522532
Student Activity 1	Display Selected Values	https://tynker.com/code/project/63d8f16fed313e6c7129e1f2
Teacher Reference: Student Activity 1 Solution	Display Selected Values - Solution	https://tynker.com/code/project/63d8ecccdbf663ada263282
Teacher Activity 2	Validate Selected Values	https://tynker.com/code/project/63d8ee8f05a3626db058b2d2
Teacher Activity 2 Solution	Validate Selected Values - Solution	https://tynker.com/code/project/63d8ee069bcdcc4aae1c5cc2
Student Activity 2	Validate Selected Values	https://tynker.com/code/project/63d8edd5c1be7f12fe58c622
Teacher Reference: Student Activity 2 Solution	Validate Selected Values - Solution	https://tynker.com/code/project/63d8ed6d54d9b152d60ea1f2
Teacher Activity 3	Book a Slot	https://tynker.com/code/project/63d8ed009a423c44be2fac22

Teacher Activity 3 Solution	Book a Slot - Solution	https://tynker.com/code/project/63d8ed1c9a423c44be2fac2d
Student Activity 3	Book a Slot	https://tynker.com/code/project/63d8ec7f8e1da6440f009a32
Teacher Reference: Student Activity 3 Solution	Book a Slot - Solution	https://tynker.com/code/project/63d8db678a120d61c90dba32
Student's Additional Activity 1	Checkout Button	https://tynker.com/code/project/63d9ff198f2edd74ed14ae02
Teacher Reference: Student's Additional Activity 1 Solution	Checkout Button - Solution	https://tynker.com/code/project/63d9fafc4d31dd5dc22ccbf2
Student's Additional Activity 2	Sign In to Book a Slot	https://tynker.com/code/project/63da04b9ba2cdc419354f742
Teacher Reference: Student's Additional Activity 2 Solution	Sign In to Book a Slot - Solution	https://tynker.com/code/project/63d9ffb424c7a876762160d7
Post Class Project	Edit Profile	https://tynker.com/code/project/63c782deb9b11a7e595cfcb2
Teacher Reference: Post Class Project Solution	Edit Profile - Solution	https://tynker.com/code/project/63c683c11238fb023d4d569a