

Lesson Name	Museum Ticket Generator Live Code + Practice	Date	
Grade level	10-12, introductory CS class	Unit	conditionals
Main Objectives	<ul style="list-style-type: none"> Practice using conditional statements Introduce subgoal labeling to help problem solve Live code with meta-notes to helps students understand the coding process 		
Standards	<u>Digital Fluency and CS Standards</u> <ul style="list-style-type: none"> 9-12.CT.8: Develop a program that effectively uses control structures in order to create a computer program for practical intent, personal expression, or to address a societal issue. AP CSP Standards <ul style="list-style-type: none"> AAP-2.H.1: Conditional statements, or "if-statements," affect the sequential flow of control by executing different statements based on the value of a Boolean expression 		
Part of Lesson	Activity/Objectives	Materials	
Do-Now (10 min)	<ul style="list-style-type: none"> Practice problems using conditionals on edabit 	Computer Internet https://edabit.com/collection/ne4orzPYMjrTsMcYr	
Student Work Time (10 min)	Subgoal labeling <ul style="list-style-type: none"> Teacher introduces task of Museum Ticket Generator Introduces concept of subgoal labeling Asks students to subgoal label for 5 minutes quietly, encouraging diagramming Asks students to check with a partner 	Computer Notebook internet	
Teacher Demo (20 min)	Teacher demos subgoal labeling <ul style="list-style-type: none"> Html needs to be able to display... <ul style="list-style-type: none"> Day the user wants Age of user The price of the ticket JS needs to be able to <ul style="list-style-type: none"> Take in the inputs from the html Use either nested conditionals or operators to compare if the discount meets the criteria Output to the html 	Computer Notebook internet	

Student Work Time (30 min)	<ul style="list-style-type: none"> • Student work time to implement the subgoals into pseudo code • Turn pseudo code into live code • During this time, teacher circulates to help students troubleshoots providing scrap paper and duckies as needed. 	Computer Notebook internet
Teacher Demo (10 min)	Live Coding <ul style="list-style-type: none"> • Teacher demonstrates coding as shown below, live coding notes in actual file and below. • Making sure to pause for student questions • Making sure to make note of any troubleshooting technique to use 	Computer Notebook internet
HW	Finish museum ticket generator	

Finished desired student output: Museum Ticket Generator as stated by the rubric attached on github

Finished desired code:

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HTML-----
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<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <title>Museum Ticket Generator</title>
    <link rel="stylesheet" href="styles.css">
    <script src='brain.js'></script>
  </head>
  <body>
    <h1>Museum Ticket Generator</h1>
    
    <p id='directions'>Enter your information to get your ticket.</p>
    Enter the day of the week:
    <select id="dayDropDown">
      <option value="mon">Monday</option>
      <option value="tue">Tuesday</option>
      <option value="wed">Wednesday</option>
      <option value="thurs">Thursday</option>
      <option value="fri">Friday</option>
      <option value="sat">Saturday</option>
      <option value="sun">Sunday</option>
    </select>
    <br>
    <br>
    Enter your age:
```

```

    <input type="number" id='age'>
    <br>
    <br>
    Coupon code:
    <input type="text" id='coupon'>
    <br>
    <br>
    <button type="button" id="submit" onclick="getTixPrice()">Submit</button>
    <p id='result'>price is...</p>
    
  </body>
</html>
JAVASCRIPT-----
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function getTixPrice(){
  var day = document.getElementById('dayDropDown').value;
  //what does document.getElementById() mean?
  //what goes in the parentheses?
  //where is that ID stated?
  var age = document.getElementById('age').value;
  //what does value mean?
  var discount = document.getElementById('coupon').value;
  //what am i accessing
  if (day == 'mon' || age <=5 || age >=65 || discount=='TIX5'){ //how does this
conditional work? how else could i implement this?
    document.getElementById('result').innerHTML = 'Price is $5';
    //why did the innerHTML change from value?
  }
  else {
    document.getElementById('result').innerHTML = 'Price is $10';
  }
}

```

Supporting Material:
See github