جامعة التقنية
والعلوم التطبيقية
University of Technology
and Applied Sciences

CSSE3101/ITSE302 – ADVANCED WEB TECHNOLOGIES
STUDENT CENTERED ACTIVITY – JAVASCRIPT ES6

1. Design the page as shown below:

Car Registration

Car Number: [_____]
Brand: [Toyota ▼]
Model: [▼]
Year: [_____]
Type: ○ Manual ○ Automatic
Price: [_____]
[Save] [Clear]

Car Information

Car Number Price:

Brand:

Model:

Type:

Year:

Price:

Total Price:

2. Use arrow function to implement the following:
   a. showModels()
      i. Function Description – When the user selects a brand (Toyota, Nissan, or Honda) from the dropdown menu, the "Model" dropdown menu should dynamically populate with the models available for that brand. For example, if the user selects "Toyota," the "Model" dropdown should display "Corolla" and "Camry" as options.
      Consider the following in the implementation:
         • Store the following models in a separate array for each brand:
            • Toyota – Corolla, Camry
            • Nissan – Sentra, Tida
            • Honda – Civic, Accord, CR-V

- Use the array map() function to add the new options in the select (dropdown box) for models.
   ii. Parameter - brand
   iii. Function invocation – when the user selects a brand

b. computeTotalPrice()
   i. Function Description – Computes the following and returns the Total Price:
      - Total Price = Price + Type Price + Tax
      - Type Price:
         a. Manual = 5% of the Price
         b. Automatic = 10% of the Price
      - Tax:
         a. if Year is 2020 and above, tax = 3% of the Price
         b. if Year is below 2020, tax = 1.5% of the Price

   Note: Use the ternary operator to implement the above requirements

   ii. Parameter – price, type, year
   iii. Function Invocation – none

c. saveCar()
   i. Function Description – Do the following:
      - Get the following values:
         ✓ Car Number (from the input field)
         ✓ Selected Brand (from the dropdown)
         ✓ Selected Model (from the dropdown)
         ✓ Price (from the input field)
         ✓ Type (from the selected radio button)
         ✓ Year (from the input field)

      - Display all the inputs in the "Car Information" section as shown in the design, including the Total Price.
   ii. Parameter - none
   iii. Function invocation – when the user clicks the Save button