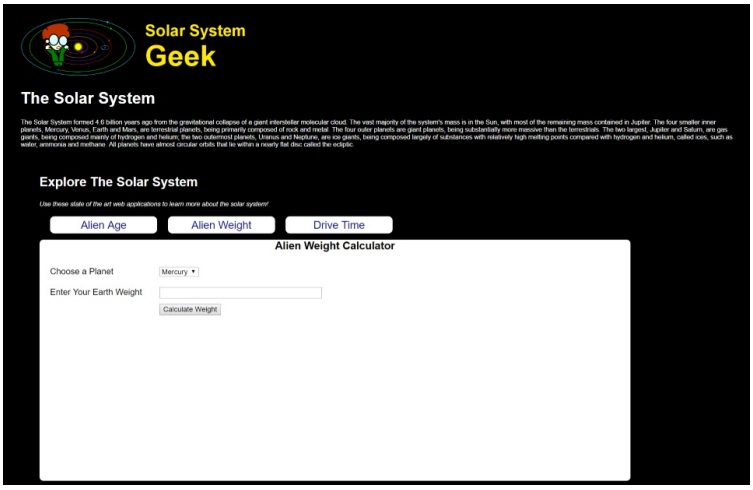
Day 1 - HTTP GET

On the Solar System Geek home page there are links for three different calculation tools to "Explore the Solar System". Implement these calculators as specified below and modify the home page links to point to your implementations.

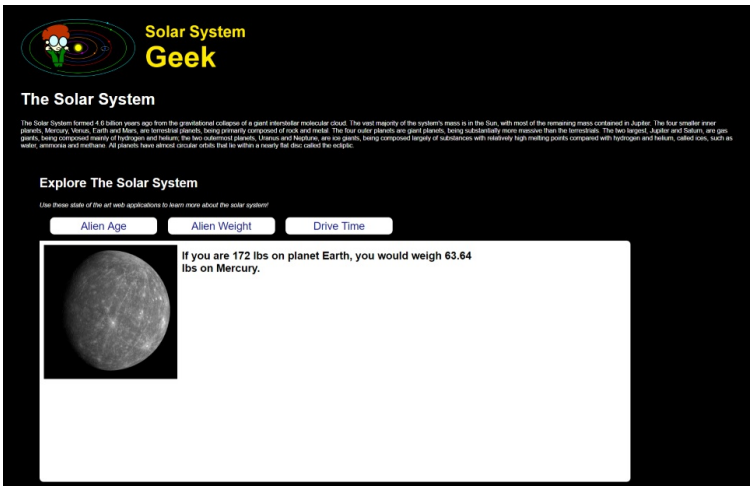
Alien Weight Calculator

Given a weight on earth, this calculator should compute the equivalent weight on another planet in the solar system. Use the gravity of the alien planet compared to earth gravity to calculate the alien weight.

Input



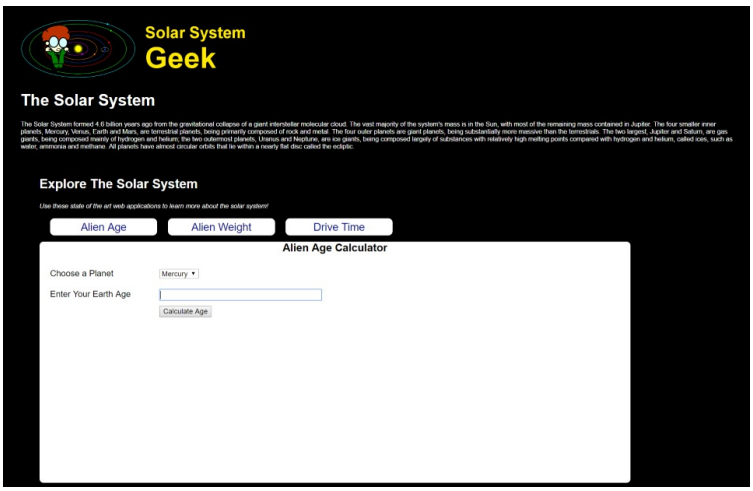
Output



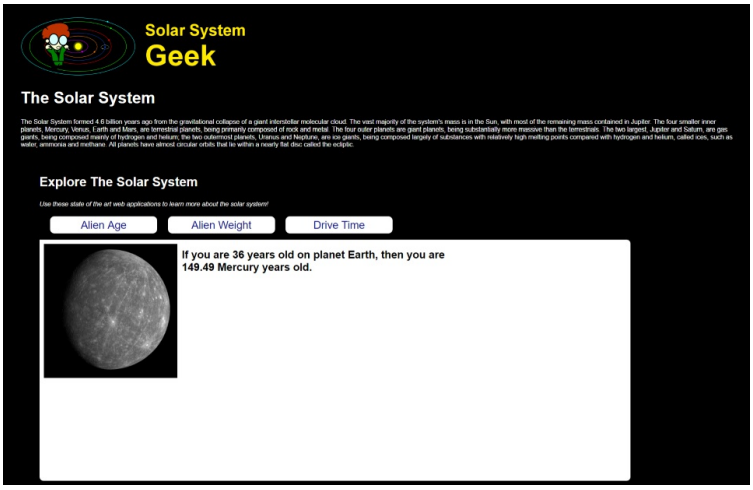
Alien Age Calculator

Given an age in Earth years, this calculator should compute the equivalent age in years for another planet in the solar system.

Input



Output

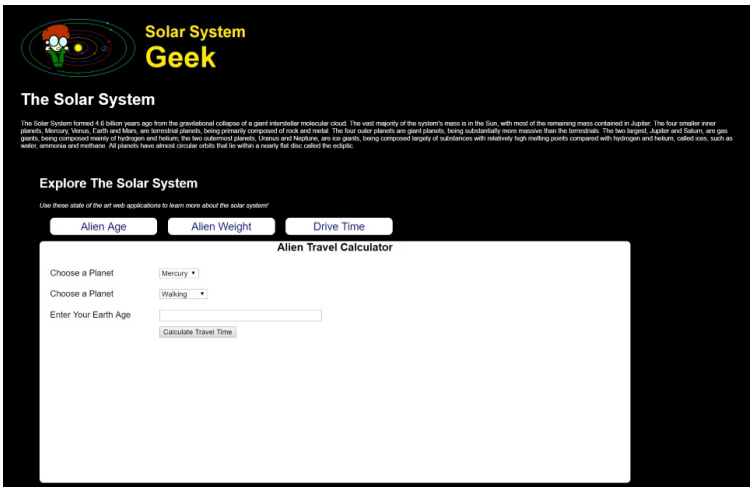


Alien Travel Calculator

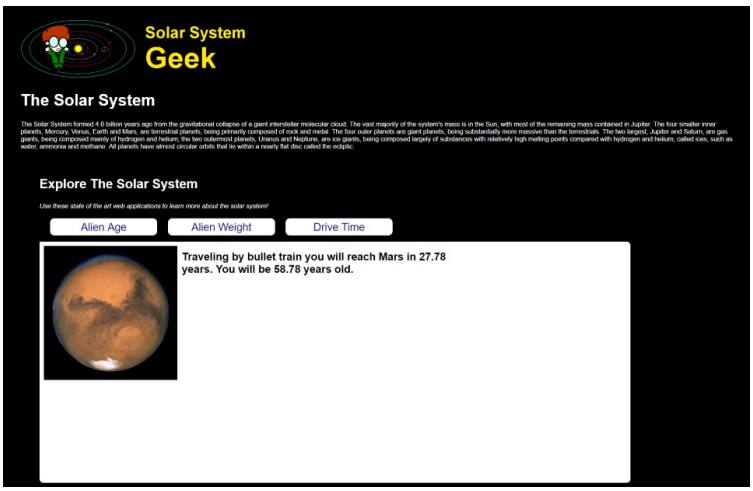
Given a destination planet, mode of transportation, and age of the traveler at the start of the journey, this calculator should compute the total travel time and age of the traveler upon arrival. The calculation should be based on the average distance between planets in the solar system and the following table of modes of transportation and their speeds:

Mode of Transport	Speed
Walking	3mph
Car	100mph
Bullet Train	200mph
Boeing 747	570mph
Concorde	1350mph

Input



Output



Day 2 - HTTP POST

You are developing an online bulletin board web component for SSGeek. It is a general forum posting, so anyone is welcome to join and post without needing to login.

The feature has two requirements:

1. Provide a page that allows a site user to submit a new post to the bulletin board
2. Provide a page to view all posts on the bulletin board

A database script(scripts/ssgeek.sql), an interface (IForumPostDAL), and a data access class (for you to implement) has been provided.

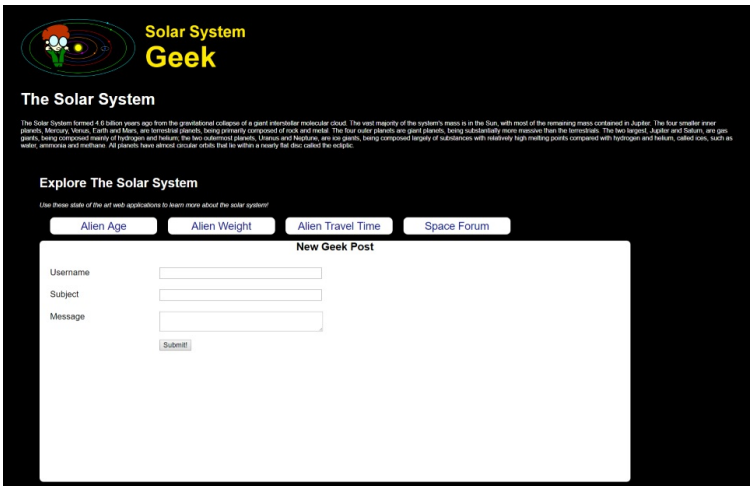
Your implementation must apply dependency injection and should be unit tested.

Submitting a New Post

Users can navigate to a page on the web application that provides them with a form to submit a new post for a bulletin board.

The page will provide the user with the form to submit:

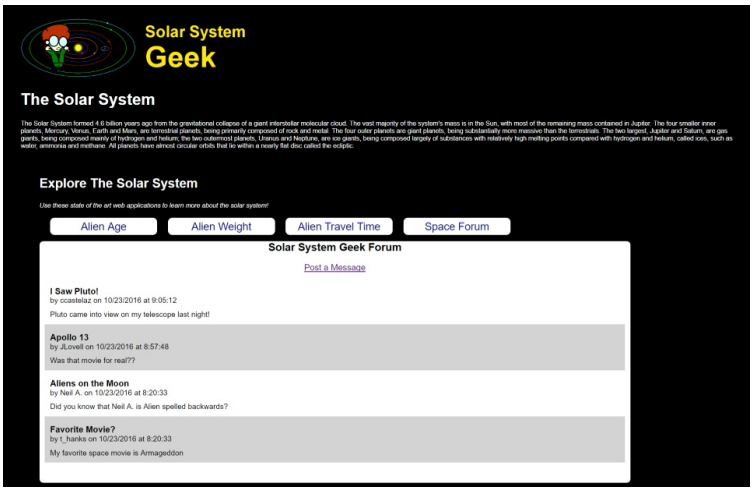
- Username
- Subject
- Message



Viewing a Post

The View Posts page allows users the ability to see any posts that were previously submitted to the web application.

The page should display to the user all of the prior posts. You can use any type of layout that you prefer.



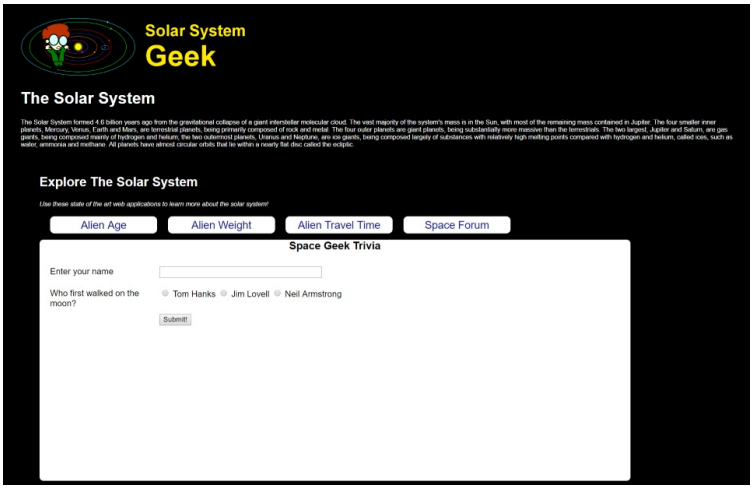
BONUS

Create a form that allows website visitors to sign up to win a prize.

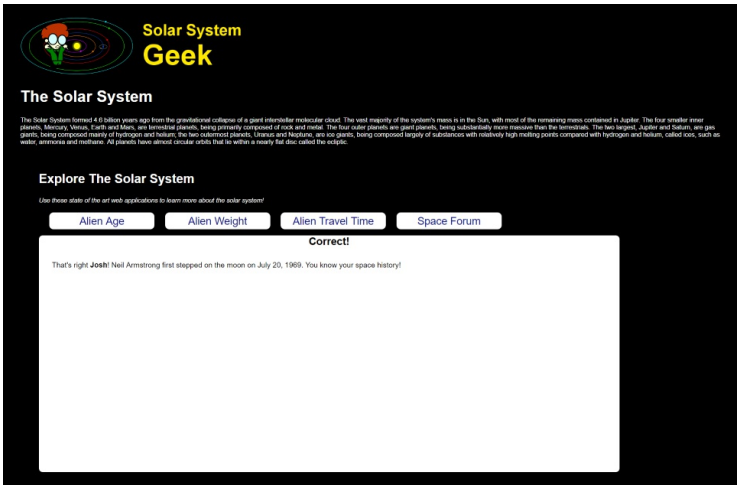
Each visitor needs to provide their name, and answer a space trivia question.

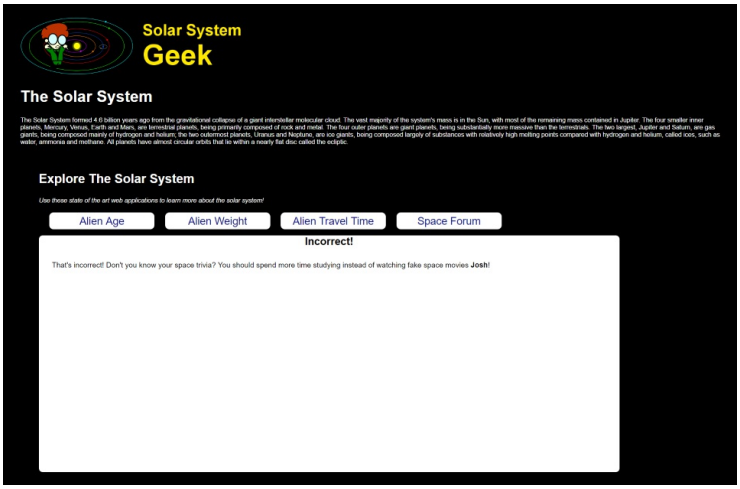
Leverage HTTP POST and the Post-Redirect-Get pattern to

1. Show the user the form
2. Have the user post their answer
3. Redirect the user to the correct action based on the input



Based on the user's answer, they will see a Correct or Incorrect page letting them know the outcome.





Day 3 - SESSION

You'll be creating a shopping cart that allows your website visitor the ability to view products, select a product, and add it to the their shopping cart.

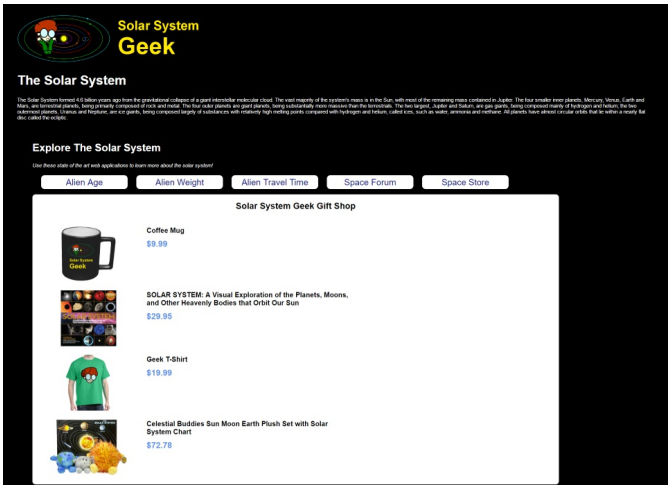
You should unit test when possible

Product List Page

The product listing page displays all of the inventory that the SSGeek shop contains (product data is available in scripts/ssgeek-orders.sql).

Requirements

- When the user clicks on the image of a product they are navigated to the **Product Detail** page
- Use the URL pattern /ShoppingCart/Index

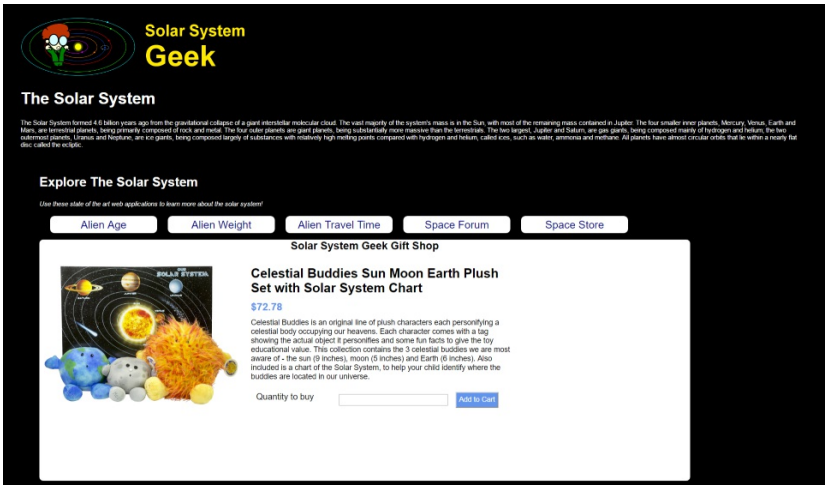


Product Detail Page

The product detail page displays the data for a specific product and allows users to add products to their shopping cart.

Requirements

- When the user enters a quantity into the textbox and *presses Enter* or *presses Add to Cart* the product is added to their shopping cart
- After the user adds an item to their shopping cart, they are redirected to the View Cart page
- Use the URL pattern /ShoppingCart/Detail/{product-id}



View Shopping Cart

The View Shopping Cart page displays all of the items that are in the visitor's shopping cart to purchase.

Requirements

- Use the URL pattern /ShoppingCart/ViewCart