مکتب شریف

اولین بوتکمپ آموزشی - استخدامی ایران

React JS

Week 11 HW

1. **Implement an abstract class called Shape.**

   - Shape class must have a private property called shapeName and two methods to calculate area and perimeter.

     NOTE: Accessing private properties in this class and other classes must be through setters and getters.

   - Implement a class called Polygon that is derived from Shape (inheritance) that has width and height properties (private) and customize the calcArea and calcPerimeter methods for this class.
   - Implement a class called NonPolygon that is derived from Shape (inheritance) that has radius property (private) and customize the calcArea and calcPerimeter methods for this class.

   - Implement Rectangle and Square classes derived (inherited) from Polygon
   - Implement Circle derived from NonPolygon
   - Implement Cylinder derived from Circle that has height property (private)

NOTE: all classes must have their own customized methods to calculate area and perimeter.

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2. Create a form like the one below

Flow:

a. a shape is selected by the user using a select box.

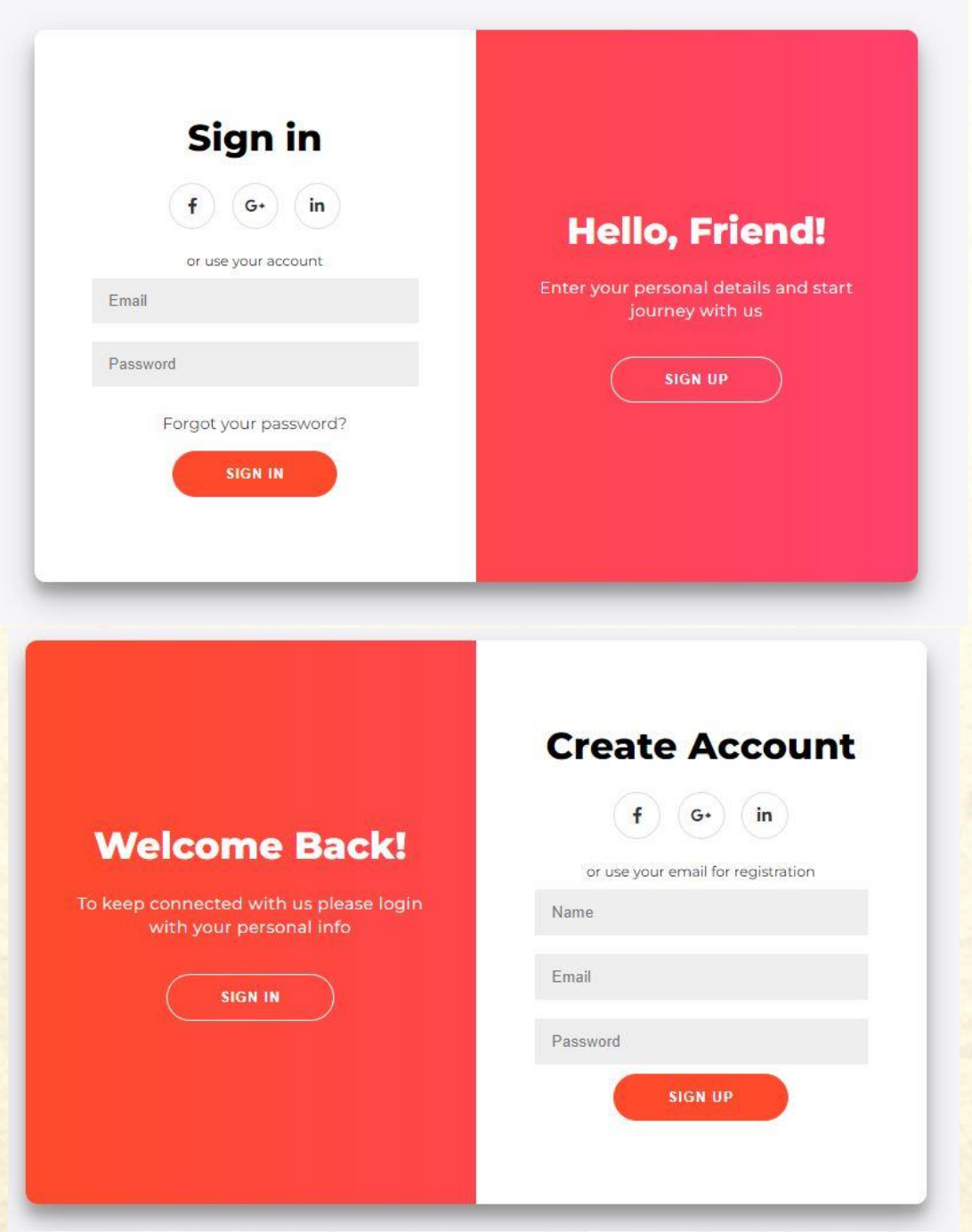
b. The necessary input fields are enabled after selecting the desired shape

c. The needed parameters are entered in the input fields by the user.

d. An instance object from the class is created
NOTE: Utilize the classes you implemented in question 1

e. The calculated perimeter and area are shown on the page

3. Implement the design below with SASS.
   NOTE: responsive optional



Figma Design Link
Animated (Click to see animations)

SUBMISSION NOTES

1. Compress your homework into a single compressed file (.rar or .zip)
2. The name should have the following format: name_hw1_maktab99
   example: MohammadAli_Kargar_hw1_maktab85
3. Create a description word document for your questions if necessary
4. Submit your file in LMS before due date.
5. If you have any questions, feel free to ask in RocketChat.

Best of Luck and Happy Coding!