Salesforce Assignment

Overview

This assignment is for Salesforce Developers candidates for Pexlify. The purpose of this assignment is to assess your development and coding skills on the Force.com platform.

Please complete this assignment by yourself. Feel free to search and use (by yourself) any information or examples online. Please do not forward this assignment to anyone. Make sure to QA your own features.

The Assignment

Your assignment should be completed on a free Salesforce developer org that you would need to create. You can open an account here:

https://developer.salesforce.com/signup?d=70130000000td6N

These are the 4 requirements to the assignment. Please complete all of them on the developer org you have created.

Company X would like to start using Salesforce and they require a few changes to the system. These are their requirements:

1. We would like to build a convertor tool from bitcoin to USD.

To get the recent bitcoin to USD value we're going to use an external data source.

We would like to make A GET REST API call to https://bitpay.com/api/rates/

Should return the recent value of one bitcoin in USD in the following format:

```
{"code":"BTC","name":"Bitcoin","rate":1},{"code":"BCH","name":"Bitcoin
Cash","rate":6.347769},{"code":"USD","name":"US Dollar","rate":9331.22}
```

The value we're looking for is: 9331.22.

Use this class and test class:

```
public class BitcoinToUSDConvertor{

     private Decimal ValueOfOneBitcoinInUSD;

     public BitcoinToUSDConvertor(){
               getTheValueOfOneBitcoinInUSD();
          }

          private void getTheValueOfOneBitcoinInUSD(){

          }
      }
 }



@isTest private class BitcoinToUSDConvertorTest {

     static testMethod void
constructorGetsTheValueOfOneValueOfOneBitcoinInUSDFromTheApiTe
st(){
          Test.startTest();
          BitcoinToUSDConvertor class_instance = new
     BitcoinToUSDConvertor();
          Test.stopTest();

          System.assertEquals(246.4867,
     class_instance.ValueOfOneBitcoinInUSD);
     }
 }
```

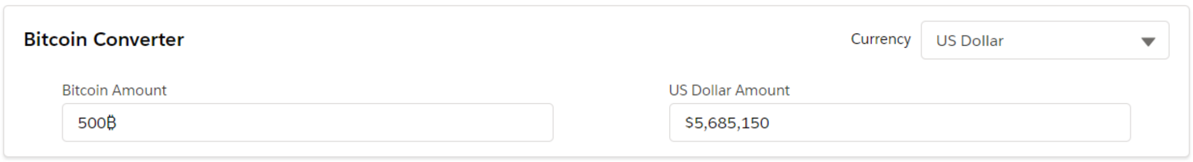
- Feel free to change BitcoinToUSDConvertor however you want. Feel free to add any other classes.

- There is no need to change BitcoinToUSDConvertorTest or add more tests to it.

- The test class need to pass. Feel free to google whatever you need.

2. We would like to build a Lightning component where a user can use our bitcoin converter. The user can convert Bitcoin to a selected currency or from that selected currency to Bitcoin.

The component would look like this:



We would then let the user see a dropdown with all the available currencies, the default currency would be USD. The dropdown values would be the names of the currencies rather than the currency code.

The currency options would be all the currencies the API call returned. (No need to show the option of converting bitcoin to bitcoin of course)

Then, the component would have 2 input fields, one for “US Dollar Amount” and one for “Bitcoin Amount”. When the amount is changed by a user in one of the fields, our component will automatically calculate the value in the other field and will update the other field.

The label of the “US Dollar Amount” input field needs to change as the user selects a different currency. The user should only enter numbers and shouldn’t be able to enter and characters into the input fields.

No need to add tests for this. It is recommended to use the class from the previous assignment.

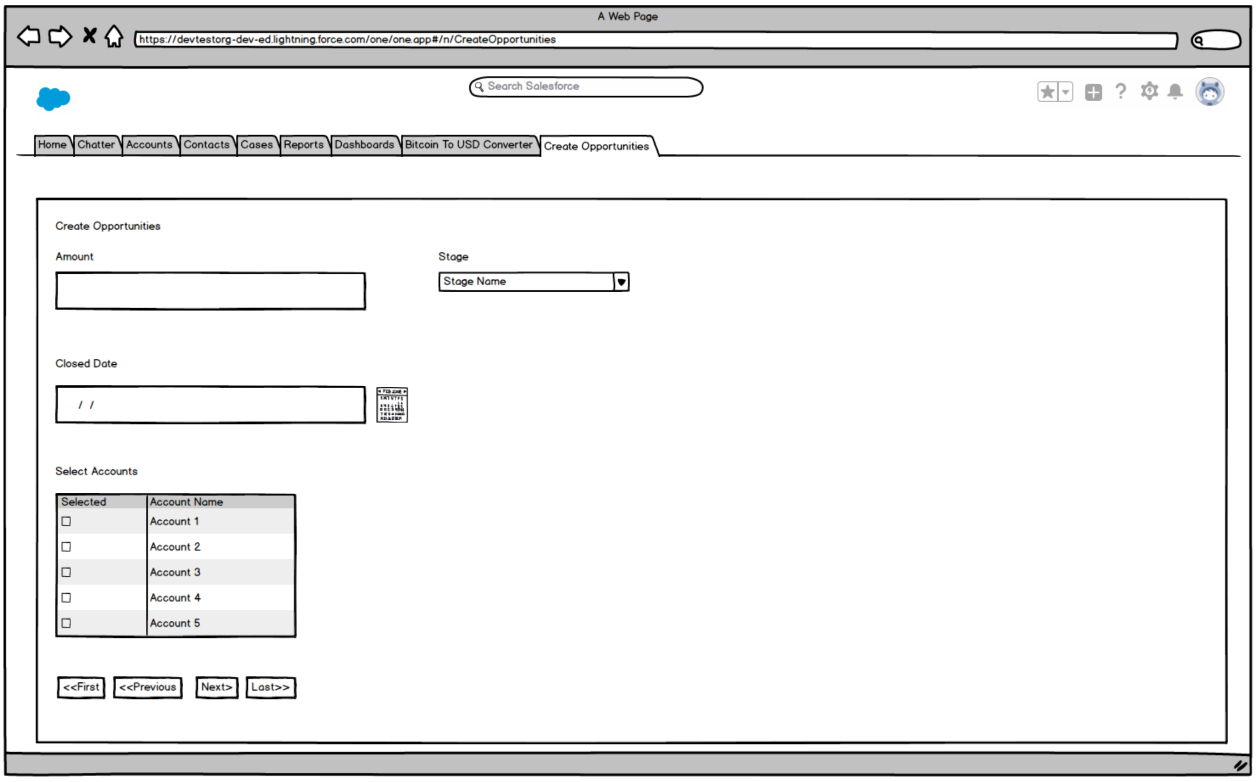
*Bonus: also change the currency symbol in the currency input field as the currency changes.

3. We would like to build a Lightning component that allows the user to create many opportunities for the existing accounts.

The component would show all the existing accounts and allow the user to select for which accounts to create an opportunity.

The account table would use pagination as there may be a lot of accounts in the system.

The page would look like this:



Selected	Account Name
☐	Account 1
☐	Account 2
☐	Account 3
☐	Account 4
☐	Account 5

- Each page contains 5 accounts.
- The amount, Closed date and stage are required and will be the same for all new opportunities
- The new opportunities names would be “New auto opportunity create for “ + Account name.
- If no accounts are selected show error message
- Pagination buttons should be disabled if there is no next/previous page.
- On creation show success message

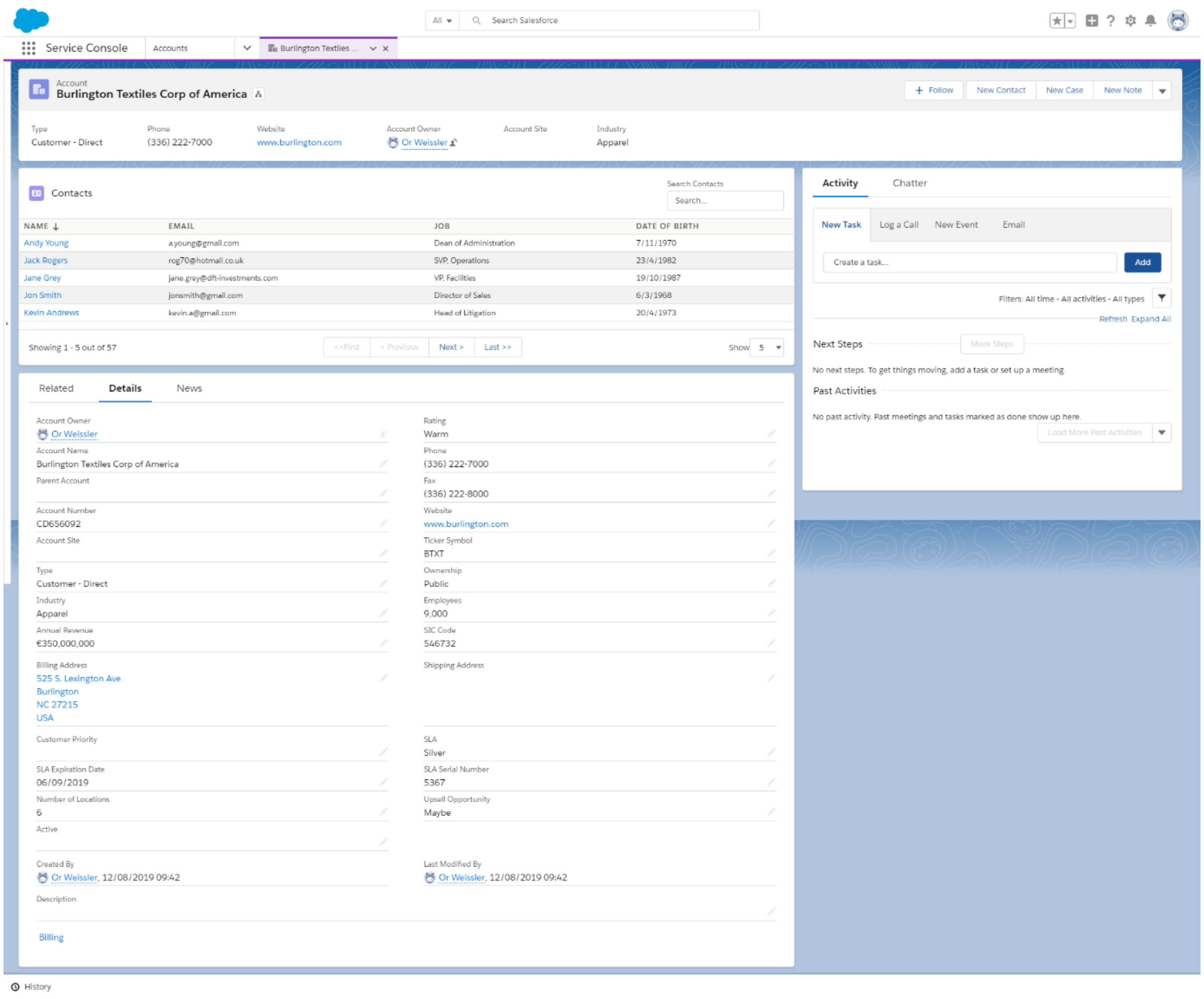
- Make sure if some of the opportunities cannot be created but others can to create the ones you can and show error message for each opportunity that couldn’t be created due to any DML errors.
- The stage input should have all the available stages for opportunity
- No need to test the code

4. We would like to add a trigger code to calculate the Accounts annual revenue in bitcoin. Each account has a default “Annual Revenue” field. We would need to add a new “Annual Revenue in Bitcoin” field. Bitcoins should have 8 decimal places. When someone updates the account “Annual Revenue” we would need to do a callout to https://bitpay.com/api/rates/ Get the value of each bitcoin in USD and update the bitcoin field for the account.

- Feel free to copy code from task 1
- No need for tests
- Make sure this works when accounts are updated in bulk
- No need to get the bitcoin to USD value if the Annual Revenue field hasn’t been changed.
- No need to worry that the bitcoin field won’t be up to date when the rate would change.
- Handle the possible exceptions

5. One of the common components we create is a simple and easy to use table which allows the user to search, filter and paginate the list. For example, if there are a lot of contacts under each account, users might want and easy way to be able to view all the contacts under and account, be able to sort the table by any column and paginate the table so that the user doesn't have to scroll too much.

The component would look like this:



Account
Burlington Textiles Corp of America

Type	Phone	Website	Account Owner	Account Site	Industry
Customer - Direct	(336) 222-7000	www.burlington.com	Or Weissler		Apparel

Contacts

Search Contacts
Search...

NAME ↓	EMAIL	JOB	DATE OF BIRTH
Andy Young	a.young@gmail.com	Dean of Administration	7/11/1970
Jack Rogers	rog70@hotmail.co.uk	SVP, Operations	23/4/1982
Jane Grey	jane.grey@dft-investments.com	VP, Facilities	19/10/1987
Jon Smith	jonsmith@gmail.com	Director of Sales	6/3/1968
Kevin Andrews	kevin.a@gmail.com	Head of Litigation	20/4/1973

Showing 1 - 5 out of 57   <<First   < Previous   Next >   Last >>   Show 5

Account Owner: Or Weissler	Rating: Warm
Account Name: Burlington Textiles Corp of America	Phone: (336) 222-7000
Parent Account:	Fax: (336) 222-8000
Account Number: CD656092	Website: www.burlington.com
Account Site:	Ticker Symbol: BTXT
Type: Customer - Direct	Ownership: Public
Industry: Apparel	Employees: 9,000
Annual Revenue: €350,000,000	SIC Code: 546732
Billing Address: 525 S. Lexington Ave, Burlington, NC 27215, USA	Shipping Address:
Customer Priority:	SLA: Silver
SLA Expiration Date: 06/09/2019	SLA Serial Number: 5367
Number of Locations: 6	Upsell Opportunity: Maybe
Active:	
Created By: Or Weissler, 12/08/2019 09:42	Last Modified By: Or Weissler, 12/08/2019 09:42
Description:	

Billing

Filters: All time - All activities - All types

Refresh Expand All

Next Steps

No next steps. To get things moving, add a task or set up a meeting.

Past Activities

No past activity. Past meetings and tasks marked as done show up here.

Few notes on the component:

- It will show all the contact for the accounts
- By default, the contact will be sorted by Name in a descending order
- If the user will click on the same column the table is currently sorted by, the order will be swapped from descending to ascending or from ascending to descending.

- If the user clicks on any other column which the table is not currently sorted by, the table will then be sorted by that column
- Show the icon up or down next to the column the table is sorted by and in the correct direction.
- Changing the “Show” select box will change the number of options shown on the page. The options should be 5 (default), 10, 25 and 50.
- The pages buttons should be disabled if there is no option to move to the next/previous page. If there are less than 5 contacts under the account, all the buttons will always be disabled.
- If the page size changes, change the current page to page 1. No need to change the page number if the sort changes.
- The user can search for contacts. As the user types in the search box, we should search for that text in any of the Name, Email or Title fields and show relevant results. Use SOSL. When the results change due to search text, move the user to page 1.
- If there are no contact under the account (or no contacts answer the search criteria) rather than an empty table, show the text “No contacts matching the search criteria” in case there is any text in the search criteria or “No contact under this account” if there are no contact under the account.
- Clicking a contact will navigate to the contact. Use the navigate Lightning event which will open a new tab in console apps.

Submission

Feel free to make assumptions if you're not sure what to do in some scenarios. Make sure to submit a list with all the assumptions you've made along with your solution.

In the coding part of the assignment, try to implement any coding patterns or principles you know if you see it fit to use them (no need to force patterns or principles if you don't think they're required).

When you finish your solution and you would like to submit it please create a user with username "pexlifylogins@pexlify.com.YourFirstNameYourLastName" (put your own full name in the username) and put the email address of the user pexlifylogins@pexlify.com. Make sure the user has a profile of "System Administrator".

When you submit your solution don't forget to send your assumptions and notes to pexlifylogins@pexlify.com.

If you have any questions, feel free to email us back and we will do our best to assist you. However, as specified before, feel free to make your own assumptions and send them with your solution.

Even if you couldn't complete all the requirements of the assignment it's better to submit part of the solution rather than nothing at all.

Good luck!