Design Insurance API

Product API

ProductRepository

Product API

InsuranceCalculator

ProductTypeRepository

InsuranceController

SurchargeService

SurchargeRepository

A picture containing text, clipart

Description automatically generated

Notes:

* You can now swap out Insurance Calculator for a mock or a different calculator improving maintenance and unit testing
* The calls to Product API are abstracted away using the Repository pattern, which makes it easier again to mock the Product API data or change where the data is coming from for maintenance and testing purposes.
* SurchargeService/SurchargeRepository were added when the feature request needed it, again with Depency Injection adhering to the Inversion of Control and Open/Closed principles
* With the Surcharge Repository changing out the storage used will be very easy to do, so good for maintaining the code