

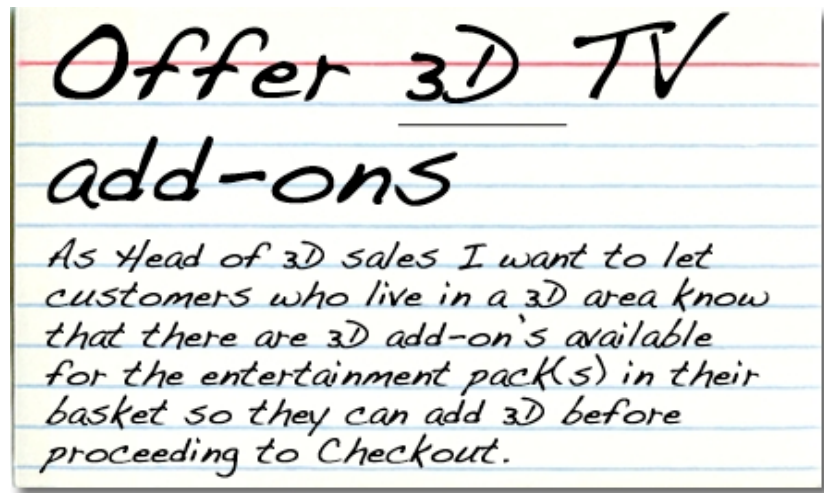
SKY TECHNOLOGY

UNATTENDED PROGRAMMING TEST

SHOPPING BASKET

Scenario

A ground-breaking broadcaster has decided to roll out 3D-TV by geographic area in the United Kingdom. A software engineering team, developing the online store, is working on the story below.



A "3D add-on" is an enhancement to a customers existing Entertainment Pack. E.g. SPORTS_3D_ADD_ON enhances the SPORTS product.

The broadcaster has partnered with a third party that provides a service that checks the 3D TV availability for a given postcode.

Included in the test pack

The following files are included in the OnlineStore package:

- Basket.php
- ThreeDeeAddOnService.php

And the following file included in the ServiceAvailability package:

- AvailabilityChecker.php
- TechnicalFailureException.php

Instructions

Try and spend no more than two hours on this problem.

You are required to provide an implementation of the ThreeDeeAddOnService interface, a simple service containing a single method.

Any of the supplied files in the OnlineStore package may be changed as you see fit, including the ThreeDeeAddOnService interface itself.

You may choose any means of accepting input and producing output, including the use of a test harness such as PHPUnit or SimpleTest.

Requirements

The product codes for the entertainment packs are:

- SPORTS
- KIDS
- VARIETY
- NEWS
- MOVIES_1
- MOVIES_2

The product codes for the add-on's are:

- SPORTS_3D_ADD_ON
- NEWS_3D_ADD_ON
- MOVIES_3D_ADD_ON

The third party service returns the following values:

Value	Description
SERVICE_AVAILABLE	3DTV service is available for the given post code
SERVICE_UNAVAILABLE	3DTV service is unavailable for the given post code
SERVICE_PLANNED	3DTV service is not available right now, but it should be available within the next 3 months
POSTCODE_INVALID	The supplied postcode is invalid

If the service is unavailable then a `TechnicalFailureException` is thrown.

Acceptance Criteria

Postcode	Basket	Expected Output
Currently in a 3D area	3D compatible products in the basket	Return relevant 3D add-ons
N/A	No products with 3D addons	Return no 3D add-ons
Currently, not in a 3D area, or technical failure occurs	3D compatible products in the basket	Return no 3D add-ons
Invalid postcode	3D compatible products in the basket	Return no 3D add-ons and notify the client that the postcode was invalid.

What we look at

We are especially interested in how you structure your code so that it's fully testable, easily extendable, complies with best OO practices, and is easy to modify / understand by others.