SKY TECHNOLOGY
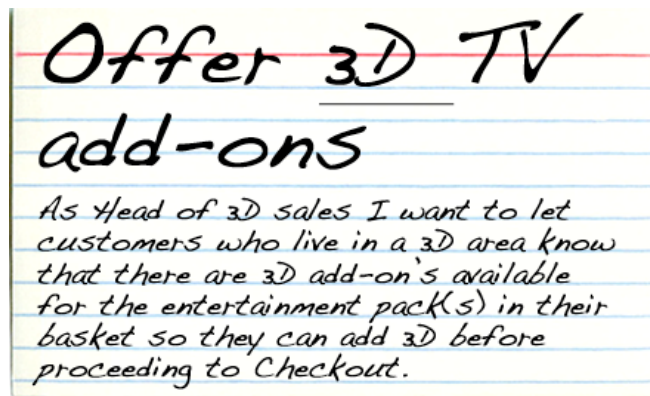
UNATTENDED PROGRAMMING TEST
SHOPPING BASKET

Scenario
A groundbreaking 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 `com.bskyb.onlinestore` package:

- `Basket.java`
- `ThreeDeeAddOnService.java`

And the following file included in the `com.acme.serviceavailability` package:

- `AvailabilityChecker.java`
- `TechnicalFailureException.java`

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 `com.bskyb.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.

SKY TECHNOLOGY

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 add-ons	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.