

## Cinema Tickets Exercise

Please think carefully about each aspect of the problem and define a solution that fits the requirements listed. Answers can be written in a language of your choice or pseudo code. A complete solution to the problem is not required and a UI is not expected in the allotted time frame.

Write down any assumptions you make or things you would do differently in a production system.

As a guide this test should take approximately 2 hours.

A cinema requires a new ticketing system to be used in their shiny new app. There are two types of ticket:

- Standard: £7.90
- Concession: £5.40

In addition, there are a few extras which can be added to some tickets:

- Real3D: £0.90
- IMAX: £1.50

The Cinema also wants to have special offers that are applied automatically. A specific offer they would like to include from the start is:

- Three for One Thursdays (buy one get two free for tickets purchased on Thursdays)

### Ticket Totaling

Your task is to implement a checkout system that can calculate the total cost of a combination of tickets that a user might buy using the app. Bear in mind:

- Tickets can be added in any order
- Offers should always be applied if possible
- The cinema owner would like to be able to show the customer how much they saved when offers have been applied
- New types of pricing/offers may need to be added in the future