

7. Recipe Finder is an app which allows users to search a list of stored recipes and displays the matching recipes.

The app stores the following details about each recipe:

- recipe title
- main ingredient
- cooking time (in minutes)
- cost per portion
- average rating (out of 5).

The app uses the record data structure shown below for the recipe data.

```
RECORD Recipe IS {STRING title, STRING ingredient,
                  INTEGER minutes, REAL cost, REAL avgRating}
```

- (a) Using a programming language of your choice, declare a variable that can store the data for 750 recipes.

Your answer should include the record data structure defined above.

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7. (continued)

- (b) Users want to search for recipes by entering the main ingredient and the maximum cooking time (in minutes). The titles and cooking times of any matching recipes should be displayed. For example:

Inputs:

Main ingredient: Pasta

Maximum cooking time: 60

Output:

Lasagne requiring 45 minutes.

Macaroni Cheese requiring 25 minutes.

...

If no recipes match the criteria the following message is displayed.

‘No matches found.’

Using a programming language of your choice, write the code to display this information. Your answer should use the record data structure provided.

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