



**Java Software Engineering Trainee
Test Problem**

1. Application overview

Personal expenses management console application that allows users to track how much money have they spent.

2. [MAJOR] Requirements

As a result of test problem solution you should provide a command-line application that supports following commands:

- ***add 2017-04-25 12 USD Jogurt*** — adds expense entry to the list of user expenses. Expenses for various dates could be added in any order. Command accepts following parameters:

2017-04-25 — is the date when expense occurred

12 — is an amount of money spent

USD — the currency in which expense occurred

Jogurt — is the name of product purchased

- ***list*** — shows the list of all expenses sorted by date
- ***clear 2017-04-25*** — removes all expenses for specified date, where:

2017-04-25 — is the date for which all expenses should be removed
- ***total PLN*** — this command should take a list of exchange rates from <http://fixer.io>, calculate the total amount of money spent and present it to user in specified currency, where:

PLN — is the currency in which total amount of expenses should be presented

3. [MINOR] Requirements

In order to get extra points for test problem solution you might cover your source code with unit tests.

4. Application usage example

Here is an example of normal application usage flow, for each command a corresponding output is shown:

```
> add 2017-04-25 2 USD Jogurt
```

```
2017-04-25  
Jogurt 2 USD
```

```
> add 2017-04-25 3 EUR "French fries"
```

```
2017-04-25  
Jogurt 2 USD  
French Fries 3 EUR
```

```
> add 2017-04-27 4.75 EUR Beer
```

```
2017-04-25  
Jogurt 2 USD  
French Fries 3 EUR
```

```
2017-04-27  
Beer 4.75 EUR
```

```
> add 2017-04-26 2.5 PLN Sweets
```

```
2017-04-25  
Jogurt 2 USD  
French Fries 3 EUR
```

```
2017-04-26  
Sweets 2.5 PLN
```

```
2017-04-27  
Beer 4.75 EUR
```

```
> list
```

2017-04-25
Jogurt 2 USD
French Fries 3 EUR

2017-04-26
Sweets 2.5 PLN

2017-04-27
Beer 4.75 EUR

```
> clear 2017-04-27
```

2017-04-25
Jogurt 2 USD
French Fries 3 EUR

2017-04-26
Sweets 2.5 PLN

```
> total EUR
```

5.42 EUR

5. Deliverables

Application should be delivered via link to a Github repository. Repository should contain README.md file with instructions on how to build and run an application.

6. Timeline

We expect you to implement and provide deliverables in up to 7 days starting from the moment you've taken the test problem. The earlier the better.

We wish you good luck and are waiting to meet you on interview to discuss provided solution!