**Coding Exercise**

**The challenge:**

As a part of the internet banking application, the user has the ability to assign categories to all the transactions they see. Eg:

A sample set of outgoing transactions are as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Transaction Date | Vendor | Type | Amount | Category |
| 01/Nov/2020 | Morrisons | card | £10.40 | Groceries |
| 28/Oct/2020 | CYBG | direct debit | £600 | MyMonthlyDD |
| 28/Oct/2020 | PureGym | direct debit | £40 | MyMonthlyDD |
| 01/Oct/2020 | M&S | card | £5.99 | Groceries |
| 30/Sep/2020 | McMillan | internet | £10 |  |

Use the category field to classify and provide the following:

1. All transactions for a given category - latest first
2. Total outgoing per category
3. Monthly average spend in a given category
4. Highest spend in a given category, for a given year
5. Lowest spend in a given category, for a given year

**Guidelines**:

* Use a language of your choice
* We are not looking for full-blown applications with front-end/persistence etc.
* Data can be sample data in files or in-memory
* The code that does the computation should be production quality