MRCard

Machine Reasoning Credit Card Recommendation System

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Sunday 10th March, 2019

1 System Overview

MRCard is a web based **Credit Card Recommender System**. The target users would be divided into two groups, consumers and businesses. To consumers, it would be a good system to learn what credit card is most suitable base on their spending habits and preferences. To businesses, i.e. banks, it would be a professional system to learn how their credit cards are compared with the market competitors. The system would be run with a web UI and it is device-friendly. The users could connect it through Internet and answer some survey question to get the recommendation on credit cards.

2 Supported browsers

2.1 Mobile devices

It supports the latest versions of each major platform's default browsers. Note that proxy browsers (such as Opera Mini, Opera Mobile's Turbo mode, UC Browser Mini, Amazon Silk) are not supported.

	Chrome	**Firefox**	**Safari**	**Android Browser & WebView**	**Microsoft Edge**
Android	Supported	Supported	N/A	Android v5.0+ supported	Supported
iOS	Supported	Supported	Supported	N/A	Supported
Windows 10 Mobile	N/A	N/A	N/A	N/A	Supported

Table 1: Mobile Devices Support

2.2 Desktop browsers

The latest versions of most desktop browsers are supported.

	Chrome	**Firefox**	**Internet Explorer**	**Microsoft Edge**	**Opera**	**Safari**
Mac	Supported	Supported	N/A	N/A	Supported	Supported
Windows	Supported	Supported	Supported, IE10+	Supported	Supported	Not supported

Table 2: Desktop Browser Support

3 Deployment

Our system is deployed by Django, which is a Python-based free and open-source web framework. To run the system successfully, some basic packages are required with the

latest version of Python 3 (i.e. Python 3.7.2).

Packages:

- PyKnow
- panda
- Django

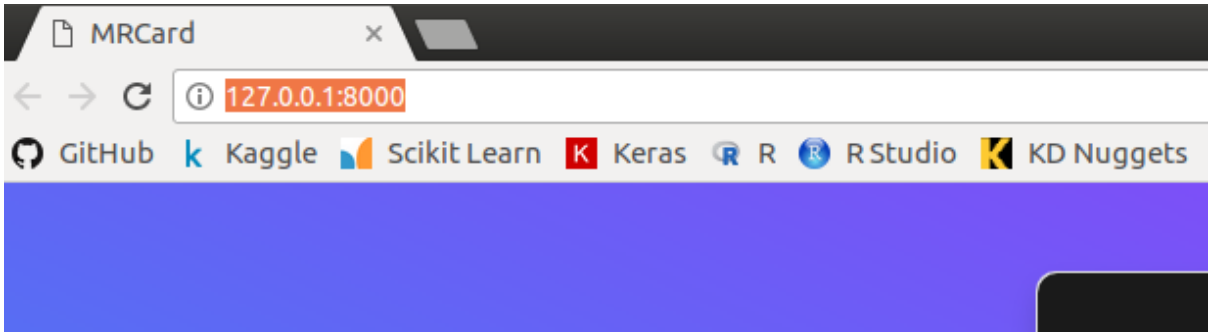
Once the running environment is ready, please open the system folder in terminal, and run the command `python3 manage.py runserver`. You should see the following output on the command line:

```
Performing system checks...

System check identified no issues (0 silenced).

You have unapplied migrations; your app may not work properly
until they are applied.
Run 'python manage.py migrate' to apply them.

February 28, 2019 - 15:50:53
Django version 2.1, using settings 'mysite.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.
```

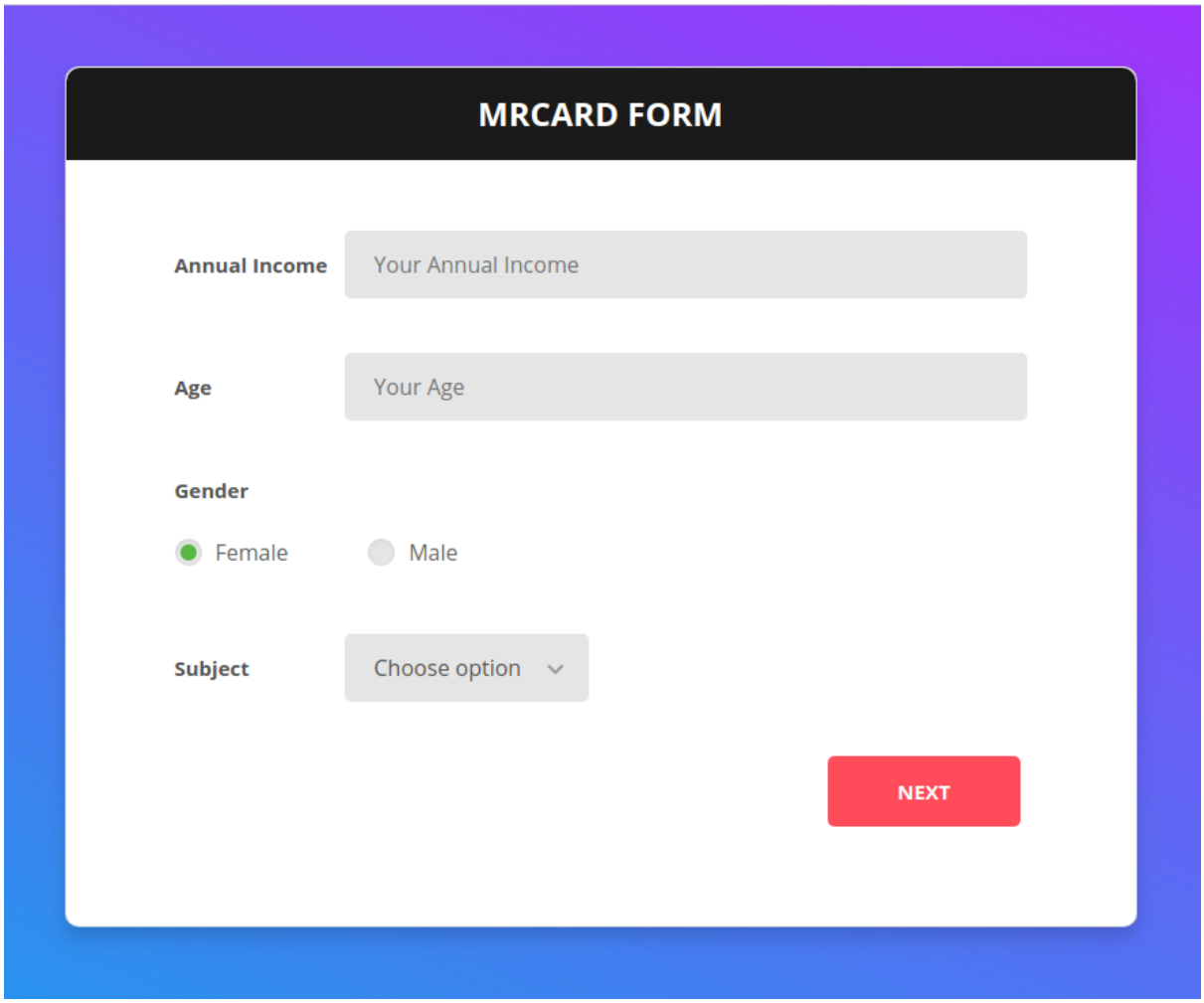
Then you can go to the web browser and input URL "http://127.0.0.1:8000/" to use MRCard.

4 Procedure

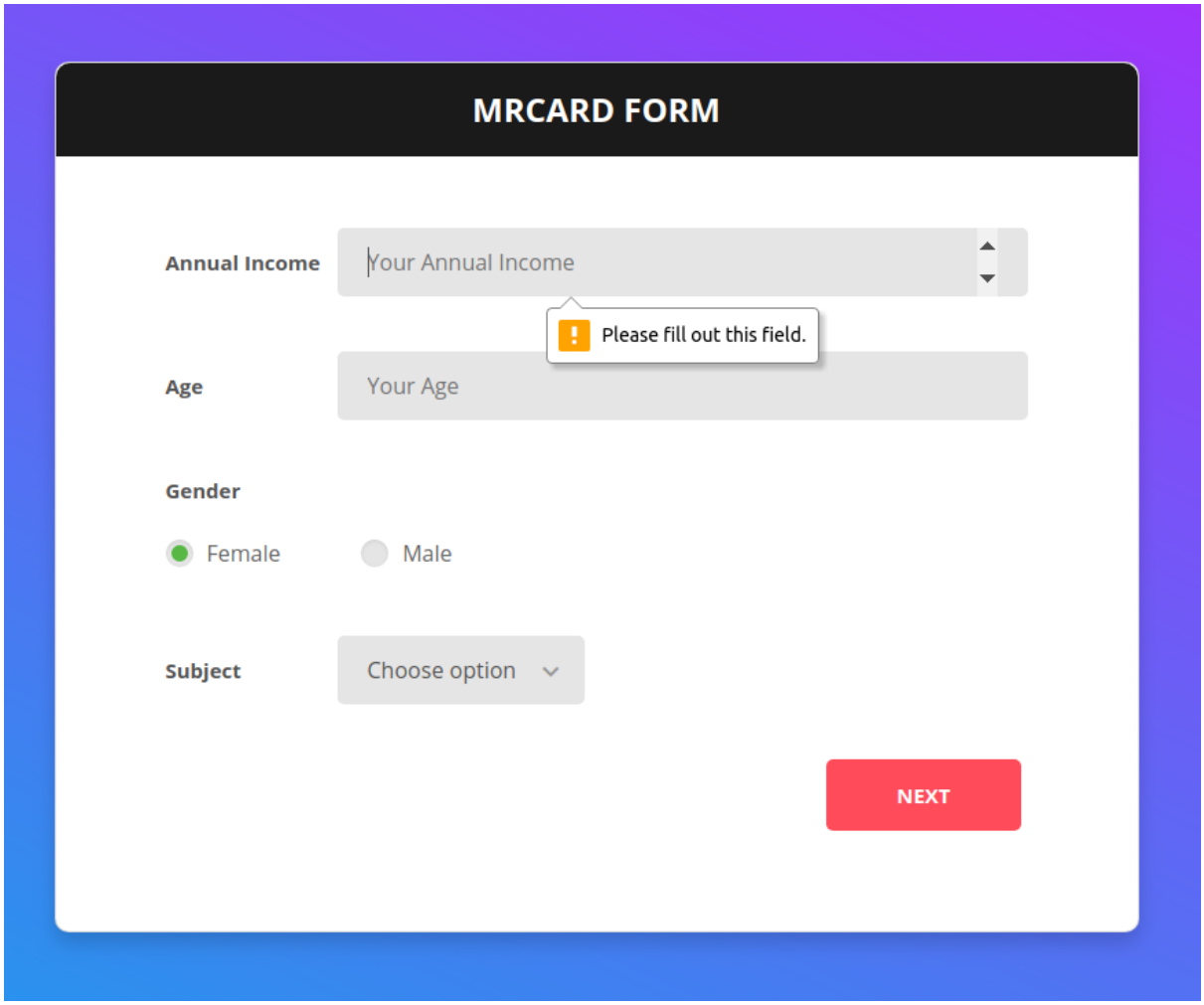
Open up your preferred browser and go to the URL "http://127.0.0.1:8000/" as shown below:



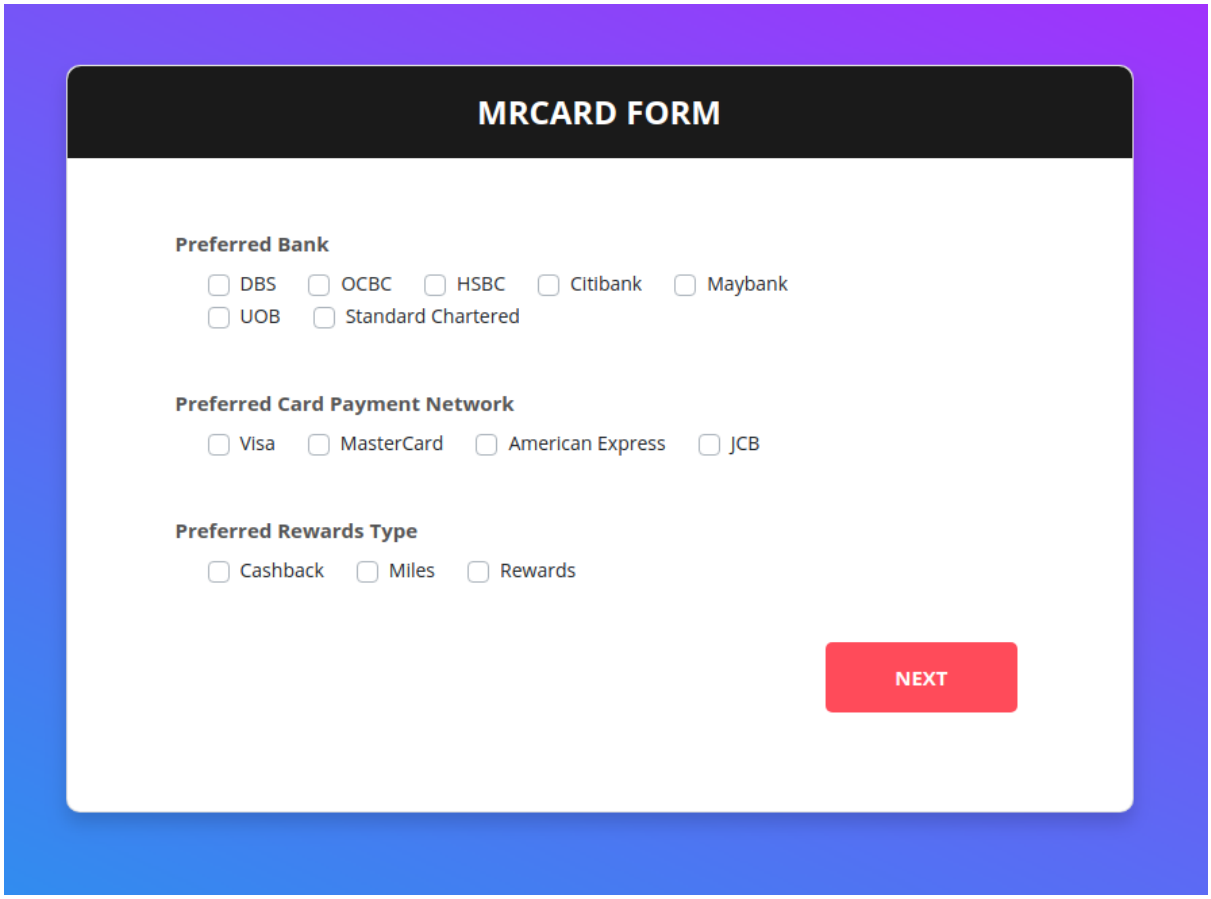
Input your Annual Income (rough), Age, Gender and Citizenship, they are all required fields. We use this to calculate which Credit Cards you are eligible for.



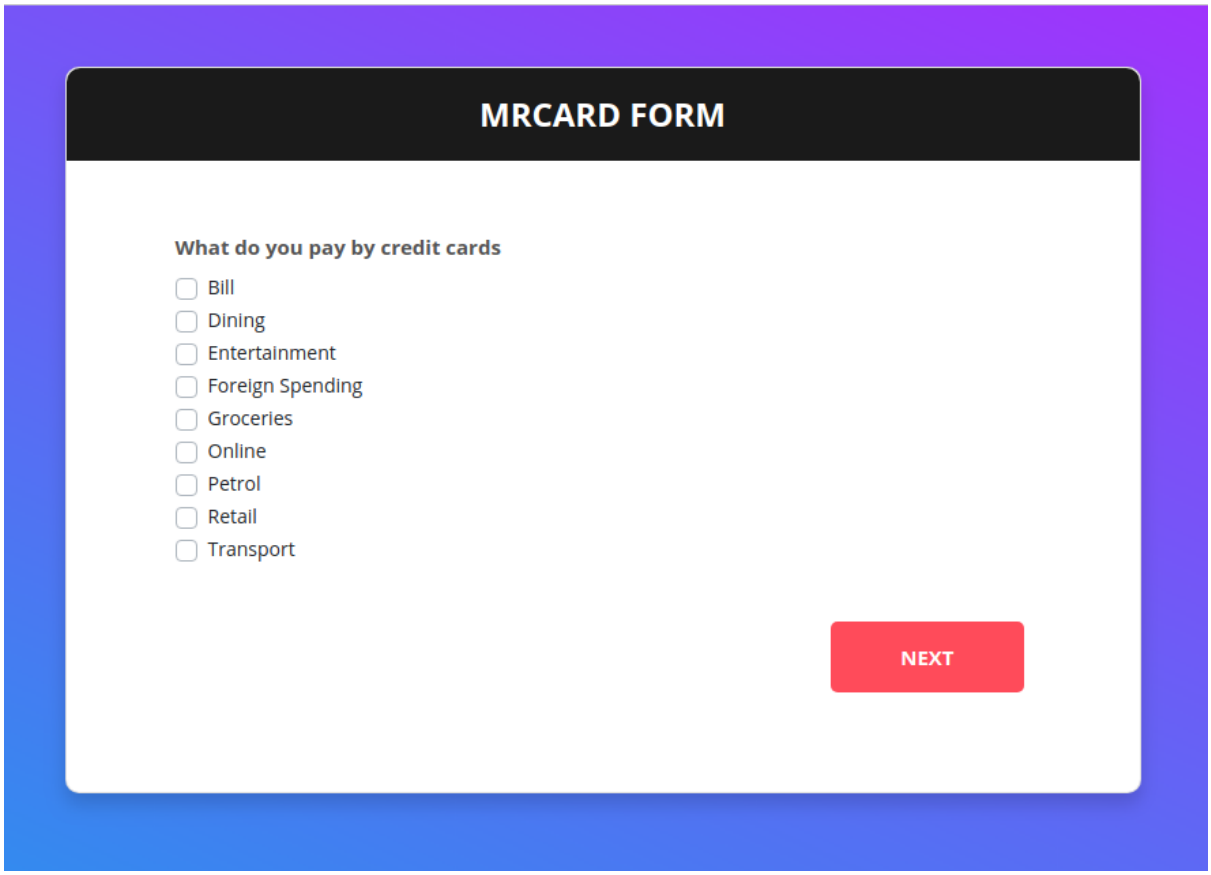
Input your Annual Income (rough), Age, Gender and Citizenship are all required fields. If you do not fill in a given field, a prompt will be exposed to remind you.



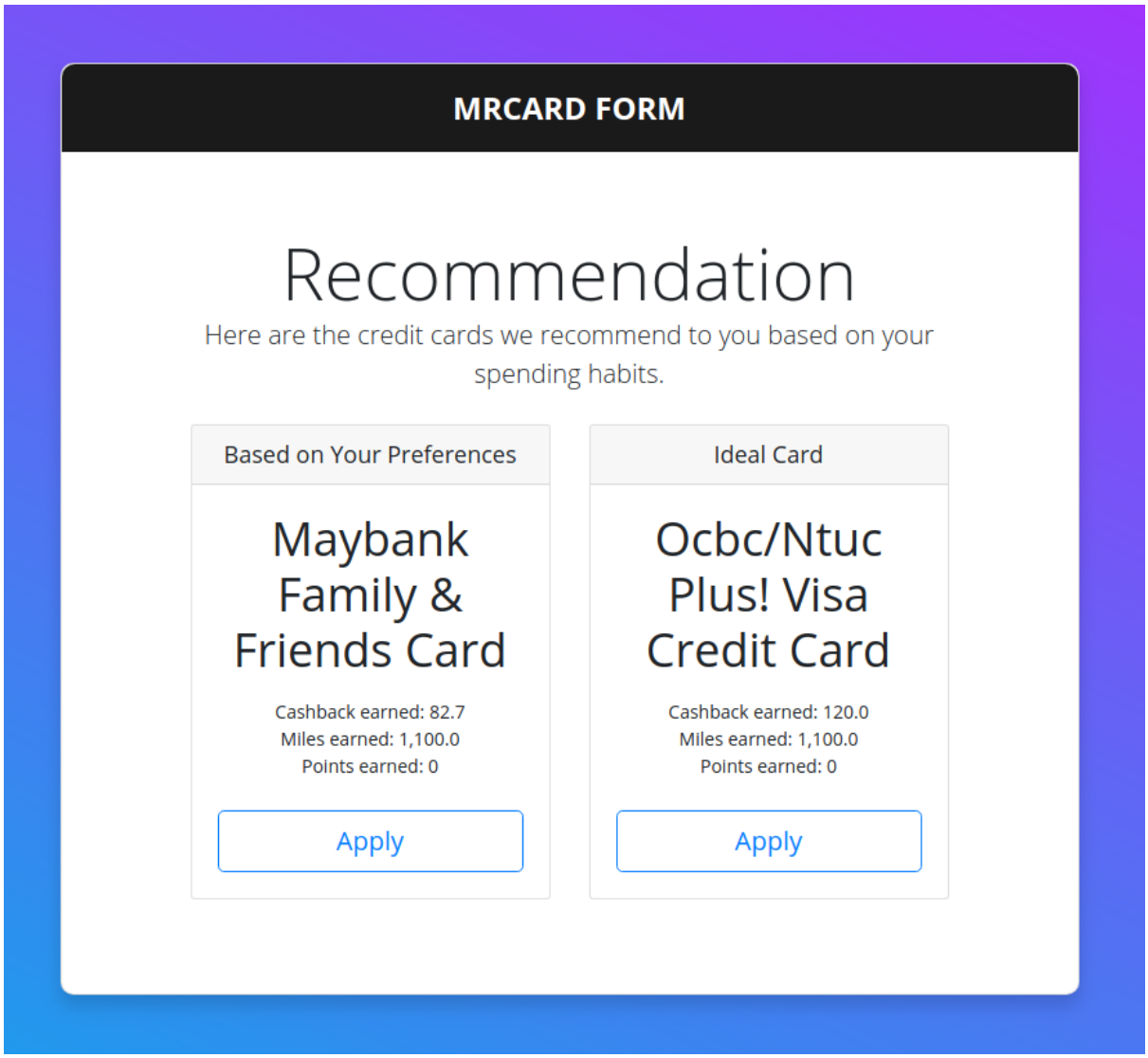
Next, you get to choose which Bank/ Payment Network and Rewards type you prefer. We will include this as part of the recommendation for preferred cards, together with the ideal Credit Card. From the set of eligible Cards, we recommend an ideal card. And from the set of eligible and preferred Credit Cards, we recommend a preferred card.



Following which, click on which categories you spend on with a Credit Card. We use this internally so that we don't need to ask you unnecessary questions for categories that you don't spend on. (e.g. If you select Groceries, we will ask you how much you spend on it) We also have a more granular breakdown for certain categories because the breakdown matters when calculating Cashback/ Miles/ Rewards.



Next, please input your spending amounts for each category. You can choose to be as granular as you want or just give a rough estimate (but our calculation will be less accurate then!)

MRCARD FORM
Bill
Amount you spent every month
Dining
Amount you spent every month
Entertainment
Amount you spent every month
Foreign Currency Spending (converted to SGD)
Amount you spent every month
Groceries
Amount you spent every month
NTUC
Amount you spent every month
Sheng Siong
Amount you spent every month
Cold Storage
Amount you spent every month
Giant
Amount you spent every month
Others
Online Shopping
Amount you spent every month
Hotel And Flight
Amount you spent every month
Others
Petrol
Amount you spent every month
Esso
Amount you spent every month
Caltex
Amount you spent every month
Shell
Amount you spent every month
Others
Retail Shopping
Amount you spent every month
Transport
Amount you spent every month
NEXT

And finally based on your eligibility, preferences, spending categories and spending amount, we calculate and give you your recommend ideal and preferred credit card. Click on the Apply button for a link to the official website to sign up! Cheers!