

# TensorFlow Model Challenge

## Data Sets

- Two files: user\_char.csv and user\_book.csv;
- The first row and column in the datasets contain labels.

## General Rules

- Use TensorFlow library to create the model;
- Train the model using the dataset provided;
- Include a README.MD file with any explanation required to run the solution; and
- Comment and explain your logic.

## Challenge

Create a recommendation engine that recommends 10 books to a user (provided the user's traits are known) based on following assumptions:

- There are 1000 books in the library and 100 users registered;
- The books are not classified by category;
- Users with similar traits like similar books; and
- Each user has 10 personality traits (chr\_) that are expressed in a binary form (i.e. value 1 means the trait is present and value 0 is used when the trait is absent). This is provided in dataset user\_char.csv.

Model a network that takes 10 traits as input and produces a recommendation for 10 books as output.

## Training

Include a function that loads user\_book.csv file (which shows how 90 of those users have selected books) and train the network.

## Testing

Include a function that loads test\_user\_book.csv (shows how the rest of those users have selected books) to test the efficiency of the network created.

Please note that test\_user\_book.csv is not provided.