Practice lab: Deep Learning for Content-Based Filtering

In this exercise, you will implement content-based filtering using a neural network to build a recommender system for movies.

Outline

NOTE: *To prevent errors from the autograder, you are not allowed to edit or delete non-graded cells in this lab. Please also refrain from adding any new cells.* ***Once you have passed this assignment*** *and want to experiment with any of the non-graded code, you may follow the instructions at the bottom of this notebook.*

1 - Packages

We will use familiar packages, NumPy, TensorFlow and helpful routines from scikit-learn (https://scikit-learn.org/stable/). We will also use tabulate (https://pypi.org/project/tabulate/) to neatly print tables and Pandas (https://pandas.pydata.org/) to organize tabular data.

In [1]:
```
import numpy as np
import numpy.ma as ma
import pandas as pd
import tensorflow as tf
from tensorflow import keras
from sklearn.preprocessing import StandardScaler, MinMaxScaler
from sklearn.model_selection import train_test_split
import tabulate
from recsysNN_utils import *
```