1. A retail chain wants to forecast product sales using factors like holidays, promotions, location, and inventory. The dataset has 80 features. How should they select the most impactful ones?

   - Collect the data
   - Preprocess the data if there is any missing values.
   - Using correlation method remove the columns which are highly correlated.
   - Split the train and test data.
   - Apply RFE (with Linear Regression Algorithm) to reduce the features with relevant ones.
   - Train the model using selected features
   - Evaluate R2score for the model.

2.A podcast platform wants to recommend new podcasts to users based on the categories and hosts they follow. How should they design this content-based system?

   - Create the pivot table for user and the items.
   - Create a vector list for whole user with to item vector (similarity matrix)
   - Create the content vector using user and item vectors
   - Select the categories and hosts users follow.
   - From the content vectors select the select the podcasts belong to that categories and hosts and that user does not know.
   - Recommend that podcasts.

3.An industrial firm wants to predict machine failure using sensor readings and system logs (200+ features). How do they choose which inputs to use?

   - Collect the data
   - Preprocess the data if there is any missing values.
   - Using correlation method remove the columns which are highly correlated.
   - Split the train and test data.
   - Apply RFE (with Random Forest Algorithm) to reduce the features with relevant ones.
   - Train the model using selected features
   - Evaluate R2score for the model.

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4. A fashion app wants to suggest outfits to users based on their previous likes, color preferences, and seasonal trends. How should they implement the recommendation?

   - Create the pivot table for user and the items.

- Create a item similarity matrix
- Create the prediction table for the items and user
- From recommendation list selecting only highest rated(predicted) value

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5. A research lab wants to predict heart disease using patient data. The dataset has lab results, habits, and vitals. How should they select only the most relevant features?

- Collect the data
- Preprocess the data if there is any missing values.
- Using correlation method remove the columns which are highly correlated.
- Split the train and test data.
- Apply selectkbest for classification to reduce the features with relevant ones.
- Train the model using selected features
- Evaluate Accuracy score for the model.

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6. A job portal wants to recommend job listings based on a user's resume and previous applications. How can they build a recommendation system?

- Create the pivot table for user and the items.
- Create a user similarity matrix with the job description
- Create the prediction table for the user and items
- From recommendation list selecting only highest rated(predicted) value

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7. A smart home system wants to predict energy usage using readings from multiple sensors. With 100+ features, how do they reduce complexity?

- Collect the data
- Preprocess the data if there is any missing values.
- Using correlation method remove the columns which are highly correlated.
- Split the train and test data.
- Apply selectkbest or RFE (with Linear Regression Algorithm) to reduce the features with relevant ones.
- Train the model using selected features
- Evaluate R2score for the model.

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8. An e-learning platform wants to suggest tutorials based on a learner's skill gaps identified from quizzes. How should they build this system?

- Create the pivot table for learner and the tutorials.
- Create a vector list for whole users with respect to tutorials vector (similarity matrix)
- Create the content vector using user and item vectors
- From the content vectors select the tutorials that the learner has gap.
- Recommend those tutorials.

9.A social media app wants to predict post engagement (likes/comments) using post features, timing, and user activity. How do they select the right features?

- Collect the data
- Preprocess the data if there is any missing values.
- Using correlation method remove the columns which are highly correlated.
- Split the train and test data.
- Apply selectkbest/RFE/any feature selection (Logistic algorithm or any best algorithm for classification) to reduce the features with relevant ones.
- Train the model using selected features
- Evaluate Accuracy score for the model.

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10. Write code logic for this:
Now you want to create an app named attendance in the project and register it.write logic for this Django project

- Go to your Particular Folder
- python manage.py attendance
- add the attendance project in the settings.py