Problem Statement

A major record label wants to purchase the rights to a music track. It does not want to encounter any losses with promotion and distribution of the track. It needs to decide on the royalties to be paid to the artists and composers.

Objective: You need to predict the popularity of the music tracks based on the features provided in the dataset.

The target variable, "popularity", has 5 categories: '**Very high', 'high', 'average', 'low', 'very low'**. The order is in decreasing popularity. For each category, there is initial bid price (for royalties to be paid) and expected revenue collections(in 10k $) as follows:

Popularity	Bid price	Expected Revenue
Very high	5	10
high	4	8
average	3	6
low	2	4
very low	1	2

Scoring: Based on the predictions, 10000(in 10k $) will be invested to place bids on the 4000 music tracks. The model should generate the highest possible revenue.

Important note: For the wrong prediction, bidding will be successful only if we bid a less popular music track at the cost of a more popular music track. Vice versa is not possible.

For example:

ID	Predicted	Actual	Bidding possible?
xxxxxx	Low	Average	No
yyyyyy	Low	Very Low	yes