

# Project Proposal

## Description

This is a Machine Learning-based project where we predict the pricing of houses based on various factors such as locality, the house's current condition, and its exterior and interior features. A regression model will be trained on the training data which will be served through a Django API. This API will return the prediction of the house price based on the input parameters.

## Collections

A brief description of the data schema in which data will be stored in collections.

| Collection Name     | Description of the collection   | Key-Value Pairs  | Who will work |
|---------------------|---|--|---------------|
| localityDescription | Specifies the neighbourhood and vicinity of the house                   | Id, MSSubClass, MSZoning<br>LotFrontage, LotArea, Street<br>Alley, LotShape, LandContour,<br>UtilitiesLotConfig, LandSlope,<br>Neighborhood  |               |
| housingConditions   | Specifies the current condition of the house                            | Id, Condition1, Condition2,<br>BldgType, HouseStyle,<br>OverallQual, OverallCond,<br>YearBuilt, YearRemodAdd   |               |
| exteriorFeatures    | Specifies the exterior features that are available and their conditions | Id, RoofStyle, RoofMatl,<br>Exterior1st, Exterior2nd,<br>MasVnrType, MasVnrArea,<br>ExterQual, ExterCond,<br>Foundation, BsmtQual,<br>BsmtCond, BsmtExposure,<br>BsmtFinType1, BsmtFinSF1, |               |

|                  |   |   |  |
|------------------|---|---|--|
|                  |   | BsmtFinType2, BsmtFinSF2,<br>BsmtUnfSF, TotalBsmtSF,<br>GarageType, GarageYrBlt<br>GarageFinish, GarageCars<br>GarageArea, GarageQual<br>GarageCond, PavedDrive<br>WoodDeckSF, OpenPorchSF<br>EnclosedPorch, 3SsnPorch<br>ScreenPorch   |  |
| interiorFeatures | Specifies the interior features that are available and their conditions | Id, tHeating, HeatingQC,<br>CentralAir, Electrical, 1stFlrSF,<br>2ndFlrSF, LowQualFinSF,<br>GrLivArea, BsmtFullBath,<br>BsmtHalfBath, FullBath,<br>HalfBath, BedroomAbvGr,<br>KitchenAbvGr, KitchenQual,<br>TotRmsAbvGrd, Functional,<br>Fireplaces, FireplaceQu,<br>PoolArea, PoolQC, Fence<br>MiscFeature, MiscVal, MoSold,<br>YrSold, SaleType |  |