

## Question 1

The attached Python script implements a simple API that provides an estimate of a house's value based on four parameters. This API is implemented using the Flask framework.

The provided implementation contains no error handling. **Your objective is to modify the given API to handle exceptions and to ensure that unreasonable inputs are handled appropriately.**

A sample call to the API is below (assuming you are running it locally):

<http://localhost:5000/houseprice?GrLivArea=1795&TotalBsmtSF=1777&GarageArea=534&YearBuilt=2002>

This API takes four input parameters

- GrLivArea: The above-ground living area of the house, in square feet.
- TotalBsmtSF: The total basement area, in square feet
- GarageArea: The total garage area, in square feet
- YearBuilt: The year the house was built

Please provide a working script as your response.

## Question 2

**Given a list of houses with (x,y) coordinates of their respective plots, add a query API method to the script above that returns all houses whose plots are contained entirely within an input polygon.**

A sample call to the API would look like below

<http://localhost:5000/houselookup?x1=50&y1=30&x2=57.5&y2=34&x3=62&y3=39&x4=65.5&y4=31.5&x5=60.25&y5=27.5&x6=58&y6=24.87&x7=50&y7=30>

Please provide working code as your response. The attached house\_coordinates.csv file provides you data to work with (the coordinates for each house are listed in counter-clockwise direction).