

CRC Card for Classes:

InputLayout	
RESPONSIBILITIES	COLLABORATOR
i. Have user input housing related instance variables such as	i. Location
1. Int Room units	ii. RegressionModel
2. String Room type: apartment or house or lone private room	iii. MapLayer
3. Boolean Whether contain bathrooms/bathrooms	
4. Boolean Whether contain WIFI/TV	
5. String detailed address	
6. Int housing price	
ii. Other responsibilities will include	
1. Ask users for the above information	

Location	
RESPONSIBILITIES	COLLABORATOR
i. Have detailed Boston address (String)	i. InputLayout
ii. Calculate distance to center using address to find distance to Boston key city attractions	
iii. Find its neighborhood using user given address	

internalReturnCalculator	
RESPONSIBILITIES	COLLABORATOR
i. Have estimated rental price (int)	i. InputLayout
ii. Have housing price	ii. RegressionModel
iii. Have estimated interest rate	iii. OutputLayer
iv. Calculate estimated rental unit cash flow	
v. Calculate estimated IRR (Internal rate of return) using estimated rental unit cash flow and estimated interest rate	

RegressionModel	
RESPONSIBILITIES	COLLABORATOR
i. Have pre-train regression model parameters (ArrayList)	i. InputLayout
ii. Also have other instance variables such as:	ii. InternalReturnCalculator
1. Int Room units	iii. OutputLayer
2. String Room type: apartment or house or lone private room	
3. Boolean Whether contain bathrooms/bathrooms	
4. Boolean Whether contain WIFI/TV	
5. Int Distance to City Center	
6. String neighborhood	
iii. Compute regression model predicted rental price	

MapLayer	
RESPONSIBILITIES	COLLABORATOR
i. Have detailed Boston address (String)	i. InputLayout
ii. Have Boston map (Map rendering in ArrayList of ArrayList)	
iii. Have Boston avg rental price by neighborhood	
iii. Display Boston map with pin-point to the user's house; also include avg rental price for each neighborhood	

OutputLayer	
RESPONSIBILITIES	COLLABORATOR
i. Have estimated rental price (int)	i. RegressionModel
ii. Have estimated IRR (float)	ii. internalReturnCalculator
iii. Display both estimated rental price and IRR to user to let them visualize whehter the given unit is a good investment	