Mini Project: Cohort 21: Affordable Housing Price Estimator

Date : 26.02.2026

Problem Statement

Affordable housing is difficult to access due to rapidly changing property prices and lack of clear information about what people can truly afford. Many individuals, especially low- and middle-income families, struggle to estimate suitable housing within their budget, which can lead to financial stress and poor decision-making. Therefore, there is a need for an **Affordable Housing Price Estimator** that uses user income, location, and other factors to provide accurate and reliable housing affordability estimates.

Sustainable Development Goal:

The Affordable Housing Price Estimator project primarily supports SDG 11: Sustainable Cities and Communities, which aims to make cities inclusive and sustainable. By helping users estimate housing prices based on their budget and location, the project enables informed decisions and promotes access to affordable housing, contributing to better urban planning and reduced housing inequality.

The project also contributes to SDG 1: No Poverty by assisting low- and middle-income families in managing housing expenses within their financial limits, reducing economic burden. Additionally, it supports SDG 10: Reduced Inequalities by making housing price information accessible to everyone, and SDG 9: Industry, Innovation, and Infrastructure through the use of technology and data analysis to address real-world housing challenges.

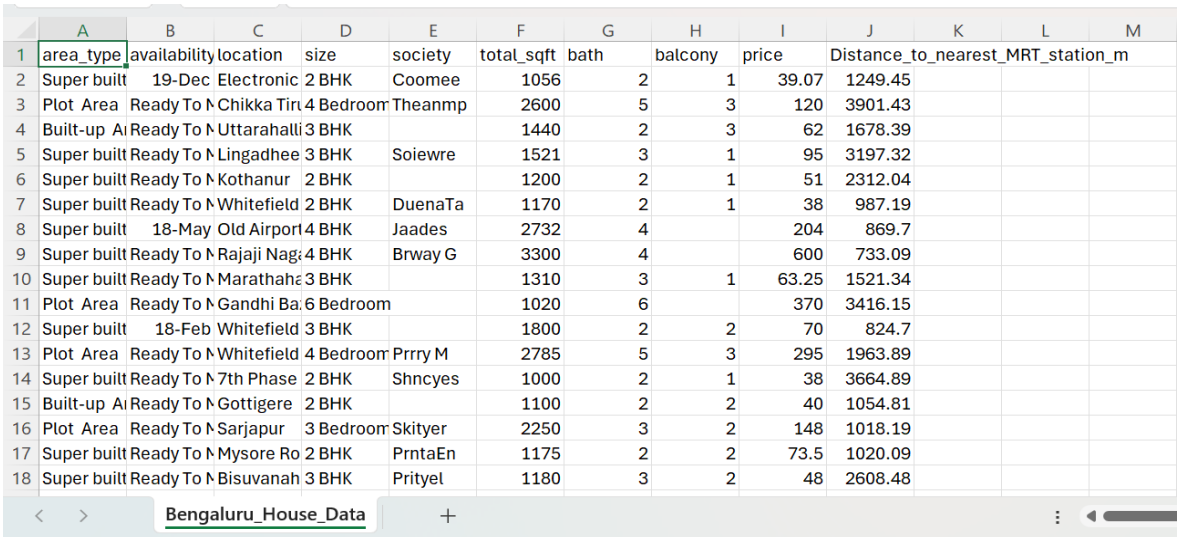
Overall, the project promotes affordable living, inclusive development, and the use of innovation to improve access to housing.

Data Collection:

For this mini project, the dataset was collected from **Kaggle**, a well-known online platform that provides open-source datasets for research, analysis, and machine learning projects. Kaggle hosts a wide variety of high-quality datasets contributed by organizations, researchers, and the data science community, making it a reliable source for academic work.

Initially, multiple datasets related to affordable housing and real estate prices were explored on the platform. Each dataset was carefully evaluated based on relevance, data quality, number of attributes, completeness, and suitability for the project objectives. After comparison, the most appropriate dataset that matched the project requirements was selected.

The selected dataset was then downloaded in a suitable format (such as CSV) and stored for further use. Before model development, the dataset underwent preprocessing steps including data cleaning, handling missing values, removing duplicates, and organizing features required for analysis. This prepared dataset was then used for building and testing the Affordable Housing Price Estimator model.



	A	B	C	D	E	F	G	H	I	J	K	L	M
1	area_type	availability	location	size	society	total_sqft	bath	balcony	price	Distance_to_nearest_MRT_station_m			
2	Super built	19-Dec	Electronic	2 BHK	Coomee	1056	2	1	39.07	1249.45			
3	Plot Area	Ready To M	Chikka Tiru	4 Bedroom	Theanmp	2600	5	3	120	3901.43			
4	Built-up Ar	Ready To M	Uttarahalli	3 BHK		1440	2	3	62	1678.39			
5	Super built	Ready To M	Lingadhee	3 BHK	Soiewre	1521	3	1	95	3197.32			
6	Super built	Ready To M	Kothanur	2 BHK		1200	2	1	51	2312.04			
7	Super built	Ready To M	Whitefield	2 BHK	DuenaTa	1170	2	1	38	987.19			
8	Super built	18-May	Old Airport	4 BHK	Jaades	2732	4		204	869.7			
9	Super built	Ready To M	Rajaji Naga	4 BHK	Brway G	3300	4		600	733.09			
10	Super built	Ready To M	Marathaha	3 BHK		1310	3	1	63.25	1521.34			
11	Plot Area	Ready To M	Gandhi Ba	6 Bedroom		1020	6		370	3416.15			
12	Super built	18-Feb	Whitefield	3 BHK		1800	2	2	70	824.7			
13	Plot Area	Ready To M	Whitefield	4 Bedroom	Prrry M	2785	5	3	295	1963.89			
14	Super built	Ready To M	7th Phase	2 BHK	Shncyes	1000	2	1	38	3664.89			
15	Built-up Ar	Ready To M	Gottigere	2 BHK		1100	2	2	40	1054.81			
16	Plot Area	Ready To M	Sarjapur	3 Bedroom	Skityer	2250	3	2	148	1018.19			
17	Super built	Ready To M	Mysore Ro	2 BHK	PrntaEn	1175	2	2	73.5	1020.09			
18	Super built	Ready To M	Bisuvanah	3 BHK	Prityel	1180	3	2	48	2608.48			

Bengaluru_House_Data

	A	B	C	D	E	F	G	H	I	J	K
412	Super built	Ready To M	Kengeri	1 BHK		34.46Sq. M	1	0	18.5	1183.18	
413	Super built	Ready To M	Sanne Ama	2 BHK	Hoxiaa	1185	2		38	9650.43	
414	Super built	Ready To M	Kengeri	2 BHK	VBvenal	750	2	1	38	1940.73	
415	Plot Area	Ready To M	Mahalaksh	6 Bedroom		1200	7	3	250	3146.88	
416	Super built	Ready To M	Kanakpura	3 BHK	JRrnauv	1550	3	3	64.5	1558.2	
417	Built-up Ar	Ready To M	Amco Colc	3 BHK	Hoeatan	1760	3	2	88	6139.12	
418	Super built	Ready To M	Billekahall	2 BHK	Asity S	1125	2	2	62	5052.48	
419	Plot Area	Ready To M	Nagarbhav	3 Bedroom		1350	3	2	150	5300.65	
420	Plot Area	17-Dec	Anandapur	2 Bedroom		1000	2	1	55	7707.63	
421	Built-up Ar	18-Aug	Bommasar	2 BHK		1090	2	2	31.48	8266.62	
422	Plot Area	Ready To M	TC Palaya	2 Bedroom		1200	2	0	60	8541.05	
423	Super built	Ready To M	Budigere	3 BHK	PrityTr	1991	4	2	103	6368.85	
424	Super built	18-Oct	Bommasar	2 BHK	DSoodil	1060	2	1	26.5	3638.44	
425	Super built	Ready To M	Ambalipur	2 BHK	SJarkte	1105	2	1	75	5483.26	
426	Built-up Ar	Ready To M	Hoodi	2 BHK	Dhgraas	985	2	2	67	3402.91	
427	Plot Area	Ready To M	Chandapu	6 Bedroom		1533	5	3	85	5648.59	
428	Super built	17-Jul	Balagere	3 BHK	HiqueMa	1590	3	2	79	6090.71	
429	Super built	Ready To M	CV Raman	2 BHK	Srshq T	1120	2	2	55	1865.25	

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2254	Super built	Ready To M	Uttarahalli	6 BHK	PoetyHo	3600	6	2	120	1603.04	
2255	Super built	19-Dec	Old Madra	2 BHK	SheldGr	935	2	1	45	8805.01	
2256	Built-up Ar	Ready To M	Bommasar	2 BHK	Vaodspe	877	2	2	30	9152.85	
2257	Super built	Ready To M	Ashwathna	2 BHK	GMentAp	936	2	2	42	7002.41	
2258	Super built	Ready To M	Nagasandr	3 BHK		1470	2	2	110	6622.12	
2259	Built-up Ar	Ready To M	Upkar Layc	1 Bedroom		1050	1	1	70	6012.99	
2260	Super built	19-Mar	Hennur Ro	2 BHK	Puachal	1232	2	0	69.61	5218.63	
2261	Super built	Ready To M	Ambedkar	3 BHK	SoechHa	2225	4	2	169	6042.17	
2262	Plot Area	Ready To M	Sunkadaka	3 Bedroom		1200	2	0	80	8417.16	
2263	Super built	Ready To M	Dasarahal	3 BHK	Sooneoo	1901	3	2	119	7213.46	
2264	Super built	18-Dec	Sarjapur R	3 BHK	Klark L	1819	3	2	100	1871.03	
2265	Super built	Ready To M	HOSUR MA	3 BHK		1464	3	2	56	6103.66	
2266	Plot Area	Immediate	Banashankari			2400			460	603.54	
2267	Super built	Ready To M	Old Madra	4 BHK	Brica E	3630 - 380	6	0	200.5	7419.15	
2268	Built-up Ar	Ready To M	9th Phase	4 BHK	ImiteEl	5000	4	3	290	7141.88	
2269	Super built	Ready To M	Someshwa	4 BHK		1200	4	3	169	7918.44	
2270	Super built	Ready To M	Kacharaka	2 BHK		1256	2	1	60	4662.03	
2271	Super built	Ready To M	7th Phase	2 BHK		1100	2	2	44	3024.73	

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