



**RTInvest**

**Team 8b**

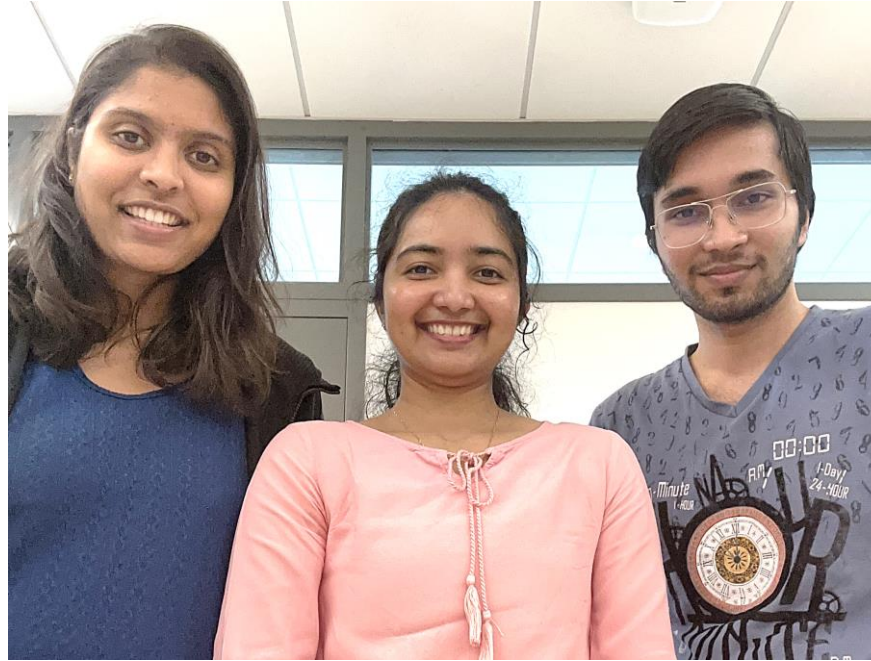
# RTInvest

Team

Problem

Solution

Lessons learned



## Prateeksha Bhojaraj

**Specialization:**  
Data Analysis (ML)  
Skills: C++, Python, Java  
Frontend

## Prarthana Prathap

**Specialization:**  
Full stack developer  
Skills: Angular, Typescript, JavaScript,  
Node.js

## Sankalp Vaish

**Specialization:**  
Full stack developer  
Skills: Python(ML), Java, C++, JavaScript,  
jQuery, MySQL, PostgreSQL



## Lessons learned

# Problem

## Solution



Real estate agent, Investor



Looks for potential properties to invest that gives a good ROI

	A	B	C	D	E	F	G	H	I
1	Buy-Rent-Hold								
2	Property Info			Income (Annual)			Cash Requirements		
3	Address	\$	91 Bellevue Rd	Gross Rents		\$8,800.00	Deposit(s) made with Offer		
4	Fair Market Value	\$	374,000.00	Parking			Less Pro-Ration of Rents		
5	Vacancy Rate		5.00%	Storage			Cash Required to Close		
6	Management Rate		5.00%	Laundry / Vending			\$ 24,200.00		
7	Advertising Cost per Vacancy	\$	100.00	Other	\$	-	Total Cash Required		
8	Number of Units		6	Total Income	\$	58,800.00	\$ 24,200.00		
9	Annual Appreciation Rate		3.00%	Vacancy Loss, (% of Total Income)	\$	2,940.00			
10				Effective Gross Income	\$	55,860.00			
11	Purchase Info			Operating Expenses (Annual)			Cashflow Summary (Annual)		
12	Offer Price	\$	374,000.00	Property Taxes	\$	5,400.00	(+ ) Effective Gross Income		
13	Repairs	\$	5,000.00	Insurance	\$	1,800.00	(- ) Operating Expenses		
14	Repairs Contingency	\$	1,000.00	Repairs	\$	2,940.00	(- ) Net Operating Income		
15	Lender Fee	\$	1,500.00	Electricity			(- ) Debt Servicing Costs		
16	Broker Fee	\$	(5,000.00)	Gas	\$	-	\$ (35,098.76)		
17	Environmentals			Lawn / Snow Maintenance			= Annual Profit or Loss		
18	Inspections or Engineer Report	\$	700.00	Water / Sewer	\$	1,200.00	\$ 1,501.23		
19	Appraisals	\$	700.00	Cable	\$	1,200.00	Total Monthly Profit or Loss		
20	Misc. (See Visit, Title Ins, Corp. Assign Fee)	\$	500.00	Management	\$	2,940.00	Cashflow per Unit per Month		
21	Transfer Tax	\$	500.00	Caretaking	\$	2,880.00	\$ 20.88		
22	Legal	\$	600.00	Advertising	\$	180.00			
23	Real Purchase Price (RPP)	\$	379,500.00	Association Fees	\$	-			
24	Financing (Monthly)			Pest Control	\$	420.00	Quick Analysis		
25	1st Mtg Principle Borrowed	\$	355,300.00	Security	\$	120.00	1st Mortgage LTV		
26	1st Mtg Interest Rate		8.00%	Trash Removal			95.00%		
27	1st Mtg Amortization Period		30 years	Miscellaneous			1st Mortgage LTPP		
28	1st Mtg CMHC Fee (% of Principle)			Common Area Maintenance	\$	-	95.00%		
29	1st Mtg Total Principle (incl. CMHC Fees)	\$	355,300.00	Capital Improvements	\$	-	2nd Mortgage LTV		
30	1st Mtg Total Monthly Payment	\$	2,574.90	Accounting			0.00%		
31	2nd Mtg Principle Amount	\$	-	Legal			2nd Mortgage LTPP		
32	2nd Mtg Interest Rate		12.00%	Bad Debts			0.00%		
33	2nd Mtg Amortization Period		9,999 years	Other (franchise, permits, bank charges, supplies, fees)			Cap Rate on PP		
34	2nd Mtg Total Monthly Payment	\$	-	Evictions	\$	180.00	9.79%		
35	Interest Only Principle Amount			Total Expenses	\$	19,260.00	Cap Rate on FMV		
36	Interest Only Interest Rate			Net Operating Income (Annual)			9.79%		
37	Interest Only Total Monthly Payment	\$	-	Net Operating Income			\$ 65,150.00		
38	Other Monthly Financing Costs	\$	350.00				Forced App. ROI (After 1 Year)		
39							Expense to Income Ratio		
40							\$ 32.76		

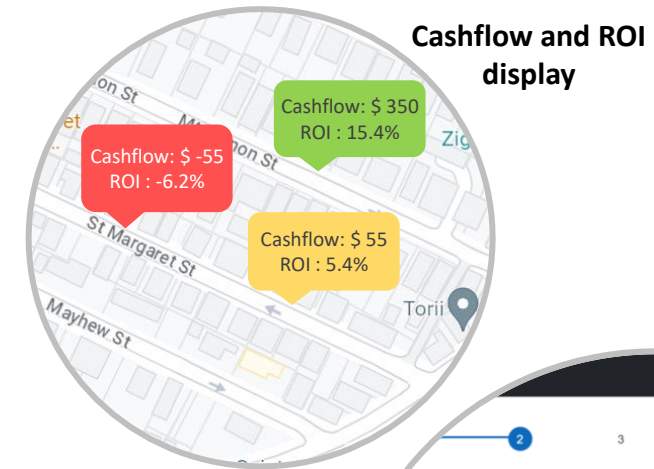
## A web application that

- Fetches to the calculator, the information required from existing real estate APIs
- A UI that shows properties in an area with potential ROI on a map

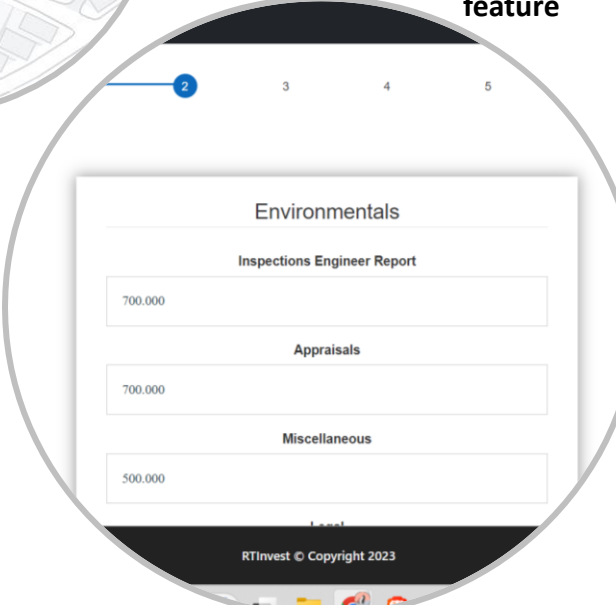
## Highlights of our webapp

- **Forgot password** feature that allows the app to send a prompt to the users' mail ID.
- **Google maps** to search for properties.
- Calculates and displays the **Cash-flow, Cash-on-Cash ROI** on the map.

Cashflow \$	< 0	0 - 100	> 100
ROI %	< 6	6 - 12	> 12
- Well **optimized code** to avoid delay in making API calls using multi-threading.
- **Set default values** feature allows user to make changes according to preference in addition to the information from the APIs. The values are stored in a DB until the user decides to change it.
- Allows a user to save **favorite** property.



### Set default values feature



Environmentals

Inspections Engineer Report

700.000

Appraisals

700.000

Miscellaneous

500.000

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Team

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## Tools & Technologies

django v 4.2.1 Framework

Frontend

HTML

v 5.0

CSS

v 3.0

Bootstrap

v 5.3

JavaScript

v ES6

jQuery

v 3.0

Python

v 3.11

Backend

Database

SQL

v 16.0



Design

Testing APIs



POSTMAN

## Use case

Investors looking for potential opportunities ○

Asset to the real estate industry since it provides detailed analysis on the investment ○

## Key takeaways



- Agile and scrum-based planning is essential
- Decision making in each phase
- Work as a team
- It is okay to have setbacks



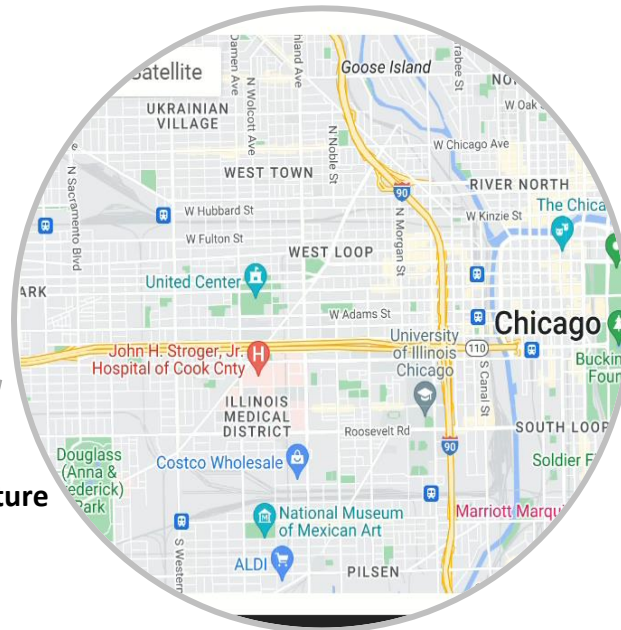
## Technical challenges faced

Getting the right API ○

Integrating maps ○

Unable to implement drawing feature due to ○  
limited API functionality

Drawing feature  
trial







**Thank You!**