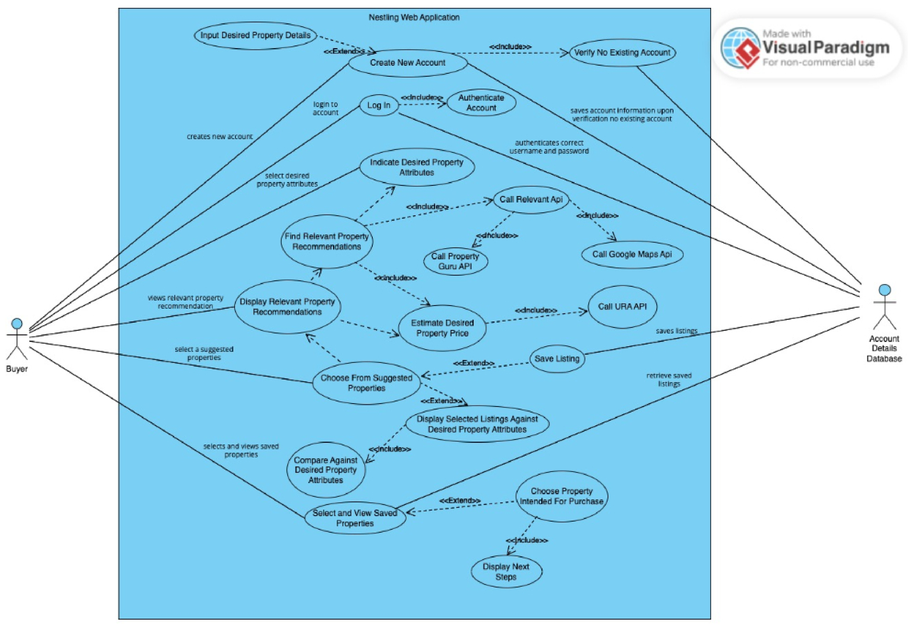
Use Case Diagram & User Case Descriptions



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Use Case ID:	1
Use Case Name:	Create New Account
Created By:	Abhijeet
Last Updated By:	Abhijeet
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer/ Account Details Database
Description:	This use case allows buyer to create a new account.
Preconditions:	nil
Postconditions:	Creation of a new account and saving of account details into Account Details Database
Priority:	High
Frequency of use:	High
Flow of Events:	User visits website and creates account
Alternative Flows:	nil
Exceptions:	nil
Includes:	Verify no existing account
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	2
Use Case Name:	Input Desired Property Details
Created By:	Aaron
Last Updated By:	Aaron
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case allows the buyer to input their desired property details
Preconditions:	User logs in
Postconditions:	Save desired property details into Account details
Priority:	Low
Frequency of use:	Medium
Flow of Events:	User inputs their desired property details
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	3
Use Case Name:	Verify No Existing Account
Created By:	Abhijeet
Last Updated By:	Abhijeet
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer/Account details database
Description:	This use case allows the system to verify if the buyer has an account already stored in the Account Details Database on the basis of buyer details
Preconditions:	nil
Postconditions:	Achieve verification
Priority:	High
Frequency of use:	High
Flow of Events:	If account does not exist, the buyer can. create a new account. However, if account exist, indicates that the user already has an existing account.
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	4
Use Case Name:	Log In
Created By:	Abhijeet
Last Updated By:	Abhijeet
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer/ Account Details Database
Description:	This use case prompts the buyer to enter correct username and password to enable the buyer to use the Nestling Web Application
Preconditions:	User has an account
Postconditions:	Achieve login
Priority:	High
Frequency of use:	High
Flow of Events:	If username does not exist in Account Details Database, it indicates incorrect input to the buyer so that they can try again. If incorrect password is inputted by the buyer, it indicates to the user incorrect password has been inputted and allows the user to try again.
Alternative Flows:	nil
Exceptions:	nil
Includes:	Authenticate Account
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	5
Use Case Name:	Authenticate Account
Created By:	Aaron
Last Updated By:	Aaron
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer/ Account Details Database
Description:	The use authenticates the buyer's password and username after they have inputted it.
Preconditions:	Username and password
Postconditions:	Authenticates user and password
Priority:	High
Frequency of use:	High
Flow of Events:	The buyer has to input username and password in the Login use case
Alternative Flows:	If username and password is incorrect, the system will prompt the buyer to reenter user and password by giving control to the Log In use case
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	6
Use Case Name:	Indicate Desired Property Attributes
Created By:	Aaron
Last Updated By:	Aaron
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case allows user to indicate their desired property attributes.
Preconditions:	User has logged in
Postconditions:	Obtain desired property attributes
Priority:	High
Frequency of use:	High
Flow of Events:	The user will enter desired location, room count, closest amenities, square footage
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	7
Use Case Name:	Find Relevant Property Recommendations
Created By:	Abhijeet
Last Updated By:	Abhijeet
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case finds the relevant property recommendations from the URA API that matches the desired property attributes the best
Preconditions:	Selected desired property attributes
Postconditions:	Relevant properties are found
Priority:	High
Frequency of use:	High
Flow of Events:	User enters desired property attributes and the system finds listings that fulfill at least 60% of those attributes
Alternative Flows:	nil
Exceptions:	nil
Includes:	
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	8
Use Case Name:	Display Relevant Property Recommendations
Created By:	Aaron
Last Updated By:	Aaron
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case displays the relevant property recommendations to the user.
Preconditions:	Relevant property recommendations from the Find Relevant Property Recommendation Use Case
Postconditions:	Display relevant property recommendations to the user
Priority:	High
Frequency of use:	High
Flow of Events:	User enters desired property attributes and initiate a comparison
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	9
Use Case Name:	Estimate Desired Property Prices
Created By:	Aaron
Last Updated By::	Aaron
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case allows system to estimate the price of the house based on the desired property attributes and past house prices from the URA database.
Preconditions:	Desired property attributes selected
Postconditions:	Estimated price
Priority:	High
Frequency of use:	High
Flow of Events:	User selects desired property attributes and then the system initiates a call to the URA API to fetch past prices to determine an estimate.
Alternative Flows:	nil
Exceptions:	nil
Includes:	Call URA API
Special Requirements:	nil
Assumptions:	Past housing market conditions are relatively similar to the present
Notes and Issues:	Drastic market changes could cause price estimation to be inaccurate

Use Case ID:	10
Use Case Name:	Call URA API
Created By:	Abhijeet
Last Updated By::	Abhijeet
Date Created:	26/01/24
Date Last Updated:	26/01/24

Actor:	Buyer
Description:	The use case calls the URA API
Preconditions:	User selects comparison function
Postconditions:	Relevant properties are found
Priority:	Medium
Frequency of use:	Medium
Flow of Events:	User inputs desired property attributes and selects comparison function
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	11
Use Case Name:	Call Property Guru API
Created By:	Aaron
Last Updated By::	Aaron
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case calls the Property Guru API
Preconditions:	User chooses to compare properties
Postconditions:	Relevant current listings are displayed to the user
Priority:	High
Frequency of use:	High
Flow of Events:	User inputs desired property attributes and initiates a search
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	12
Use Case Name:	Call Relevant API
Created By:	Aaron
Last Updated By::	Aaron
Date Created:	26/01/24
Date Last Updated:	26/01/24

Actor:	Buyer
Description:	The use case calls the Relevent API.
Preconditions:	User selects comparison function
Postconditions:	Relevant properties are found
Priority:	High
Frequency of use:	High
Flow of Events:	User selects desired property attributes and then selects the comparison function
Alternative Flows:	nil
Exceptions:	nil
Includes:	Call Google Maps API, Call Property Guru API
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	13
Use Case Name:	Choose From Suggested Properties
Created By:	Aaron
Last Updated By::	Aaron
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

n	Buyer
Description:	This use case allows the buyer to select the suggested properties they would like to save.
Preconditions:	Suggested properties are displayed
Postconditions:	Preferred properties are selected
Priority:	High
Frequency of use:	High
Flow of Events:	User selects properties they prefer from the displayed list of relevant properties.
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	14
Use Case Name:	Call Google Maps API
Created By:	Abhijeet
Last Updated By::	Abhijeet
Date Created:	26/01/24
Date Last Updated:	26/01/24

Actor:	Buyer
Description:	The use case calls the Google Maps API.
Preconditions:	User selects comparison function
Postconditions:	Relevant properties are found
Priority:	High
Frequency of use:	High
Flow of Events:	nil
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Assumptions:	nil
Notes and Issues:	nil

Use Case ID:	15
Use Case Name:	Save Listing
Created By:	Abhijeet
Last Updated By::	Abhijeet
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case allows the buyer to save a selected use case from the Choose From Selected Properties use case to the Account Details Database
Preconditions:	The buyer should have selected a suggested property from the Choose From Selected Properties use case
Postconditions:	Save selected property to Account Details Database
Priority:	High
Frequency of use:	High
Flow of Events:	User selects one of the suggested properties. This property is then saved to the account
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Notes and Issues:	nil
Assumptions:	nil

Use Case ID:	16
Use Case Name:	Compare Against Desired Property Attributes
Created By:	Abhijeet
Last Updated By::	Abhijeet
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case allow the buyer to compare a saved property to their desired property attributes.
Preconditions:	The buyer should have inputted their desired property attributes.
Postconditions:	Obtain desired property attributes from buyer
Priority:	High
Frequency of use:	High
Flow of Events:	User selects from saved properties and selects comparison function
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Notes and Issues:	nil
Assumptions:	nil

Use Case ID:	17
Use Case Name:	Display Selected Listings Against Desired Property Attributes
Created By:	Abhijeet
Last Updated By::	Abhijeet
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case displays to the buyer the saved listing that they have selected to view against the desired property attributes.
Preconditions:	The buyer should have inputted their Desired Property Attributes and choosen a listing.
Postconditions:	Obtain desired property attributes from buyer
Priority:	High
Frequency of use:	High
Flow of Events:	nil
Alternative Flows:	nil
Exceptions:	nil
Includes:	Compare against desired property attributes
Special Requirements:	nil
Notes and Issues:	nil
Assumptions:	nil

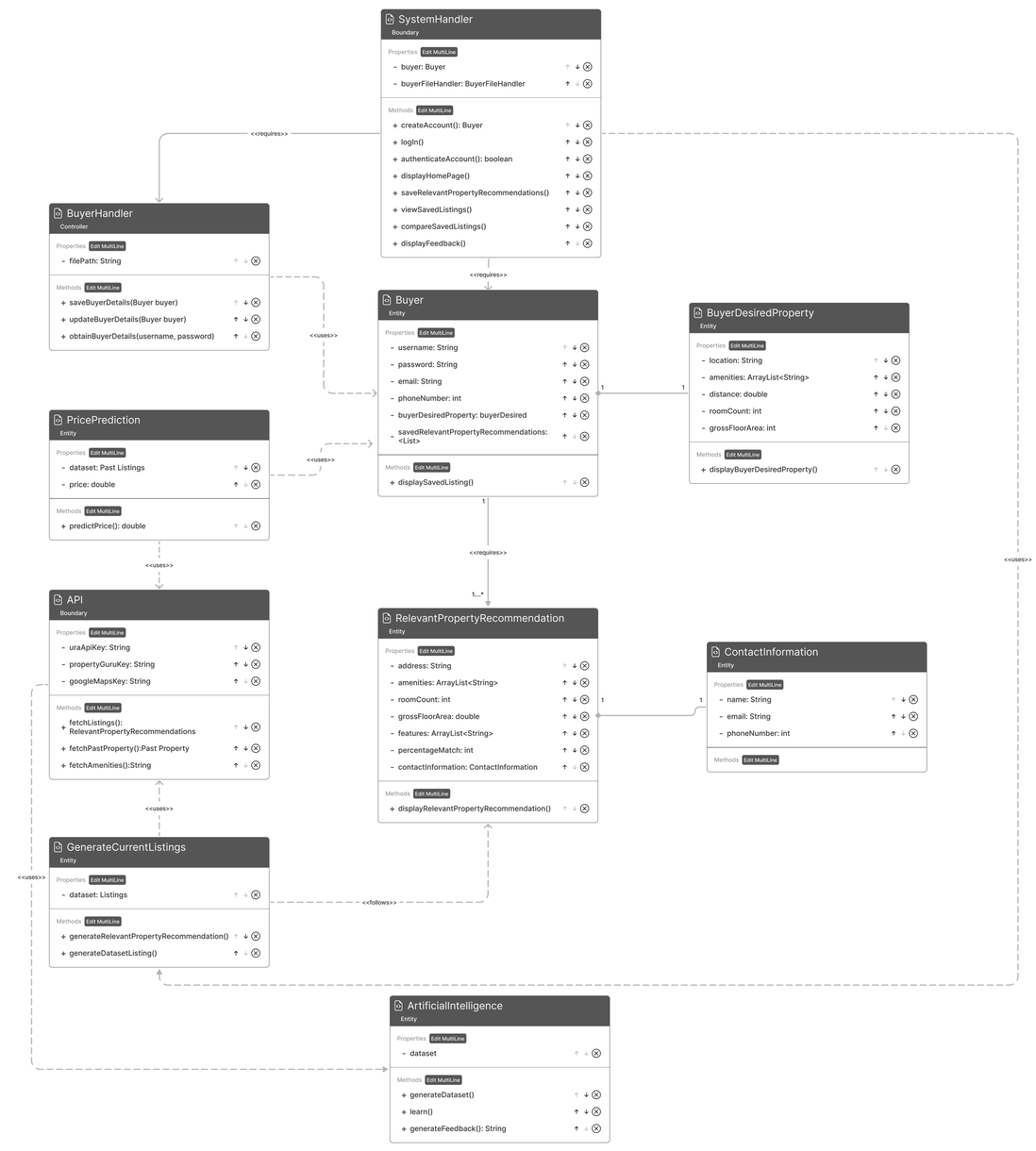
Use Case ID:	18
Use Case Name:	Select And View Saved Properties
Created By:	Abhijeet
Last Updated By::	Abhijeet
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer/Account Details Database
Description:	This use case allows the buyer to view their saved properties.
Preconditions:	The buyer should have saved properties.
Postconditions:	Nil
Priority:	High
Frequency of use:	High
Flow of Events:	User selects from list of saved properties
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Notes and Issues:	nil
Assumptions:	nil

Use Case ID:	19
Use Case Name:	Choose Properties Intended For Purchase
Created By:	Abhijeet
Last Updated By::	Abhijeet
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case allows buyer to select properties they wish to purchase from their saved listings.
Preconditions:	The buyer should have saved listings
Postconditions:	Nil
Priority:	High
Frequency of use:	High
Flow of Events:	User looks at list of saved properties and selects one
Alternative Flows:	nil
Exceptions:	nil
Includes:	Display next steps
Special Requirements:	nil
Notes and Issues:	nil
Assumptions:	nil

Use Case ID:	20
Use Case Name:	Display Next Steps
Created By:	Abhijeet
Last Updated By::	Abhijeet
Date Created:	26/1/2024
Date Last Updated:	2/2/2024

Actor:	Buyer
Description:	This use case would prompt the user on what to do next in order to purchase the property.
Preconditions:	The buyer should have selected from list of saved properties
Postconditions:	Prompts for the user
Priority:	High
Frequency of use:	High
Flow of Events:	nil
Alternative Flows:	nil
Exceptions:	nil
Includes:	nil
Special Requirements:	nil
Notes and Issues:	nil
Assumptions:	nil

Class Diagram Of Entity Classes