

Instructions and Assumptions

- Marks for the criteria are based on completed code. If only one use case is implemented out of 2 use cases, you are eligible for 50% of total marks + common code used by both use cases. In some scenarios based on the complexity of the use case the weightage for each use case might vary.
- Design user interface as per requirement. Use Cascading style sheets, Externalize JavaScript code
- Test all scenarios for all service methods which include main flow and exceptional flow. Test results should not depend on execution order.
- Design the tables/entities as needed for the application with the required fields
- Provide all DDL and DML database scripts
- Application does not need any authentication

Requirements**Self-assessment of the Property tax**

Build a web based application to help users to pay Property tax of “Residential property”. The application should also help the users to assess the property tax under Unit Area Value (UAV) system. Details of Unit Area Value (UAV) for assessment of RESEDENTIAL PROPERTY within a particular city jurisdiction are listed as below:

Column 1		Column 2	Column 3		
Category	Description of the property	Status	Zone A	Zone B	Zone C
I	RCC buildings	Tenanted	5.00	4.00	3.60
		Owner	2.50	2.00	1.80
II	RCC buildings with cement or red-oxide flooring	Tenanted	4.00	3.50	3.00
		Owner	1.80	1.60	1.20
III	Tiled/Sheet of all kinds	Tenanted	3.00	2.50	2.00
		Owner	1.25	1.00	0.75

Note: Application should not limit to 3 Zones. Application should be flexible and support adding more zones as and when required. Status can be limited to “Tenanted” or “Owner”. Store the above details in database using 3NF. **Provide DDL and DML for the same.**

Business logic :-> How to arrive at the Total tax payable for Residential properties:

Steps:

1. Total_1 = Built Up area [Square feet] * unit area Value * 10 months
2. Total_2 = Total_1 – Applicable depreciation
3. Total_3 = Total_2 * 20% [Property tax for residential area]
4. Total_4 = Total_3 * 24% [CESS ==> Health cess + beggary cess + Library cess]
5. Total_5 = Total_3 + Total_4

Depreciation: Depreciation rate in percentage on taxable annual value [Total_1] will be the age of the building. For example, if the age of building in 25 years then depreciation percentage will be 25%. Depreciation for building which exceeds 60 years will be fixed at 60%. i.e., a building whose age is 100 years should also pay 60%.

Home page should have two links:

- a) Self-Assessment Form
- b) Zonal-wise report

What to implement:

Screen 1:

Clicking on “Self-Assessment Form” hyper link on home page user is redirected to “Self-Assessment of Property Tax Form” screen as shown below:

Self Assessment of Property Tax Form

Year of Assessment	<input type="text" value="2014"/>
Name of the Owner	<input type="text" value="Shanker Shastri"/>
Email	<input type="text" value="sshastry@gmail.com"/>
Address of Property	<input type="text" value="NO.5, Sampige Road, Malleswaram"/>
Zonal classification	<input type="text" value="Zone B"/>
Description of the property	<input type="text" value="RCC buildings with cement or red-oxide flooring"/>
Status	<input type="text" value="Owner"/>
Building constructed year	<input type="text" value="2004"/>
Built up area (Square feet)	<input type="text" value="1200"/>
Total Tax Payable	<input type="text"/> [Computation from details provide above]
<input type="button" value="Cancel"/>	<input type="button" value="Pay Tax"/>

Screen description details:

- a) Year of assessment: Single input text box for accepting the year for which the assessment is submitted. The year cannot be future year. Name of the Owner: Single input text box for accepting the name of the owner.
- b) Email: Single input text box for accepting the email of the owner
- c) Address of Property: Multiline text for accepting the address of property for which self-assessment of tax is done
- d) Zone classification: Dynamic drop down of data fetched from database. Zone details are explained above.
- e) Description of the property: Dynamic drop down of data fetched from database, [RCC, RCC buildings with cement or red-oxide flooring, etc.]
- f) Status: Static drop down can have values "Tenanted" or "Owner"
- g) Building constructed area: Single input text box for accepting the year of construction
- h) Built up area: Single input text box for accepting to accept area in square feet[30' x 40' construction is 1200 square feet]
- i) Total Tax payable: On focus of the text box should be populated with read only value computed using the provided information and using business logic: How to arrive at the total tax payable for Residential properties as explained above. **This functionality should be developed using JSON/JQuery or other AJAX framework libraries.**
- j) Cancel: Clicking on this button, user is redirected to "Home Page" without submitting the data to Server.
- k) "Pay tax" submit button: Clicking on the button tax details information data is recorded in the database and user is redirected to home page with message "Tax details are saved successfully".

Note: Payment gateway is not considered for this application. Assumption is on clicking "Pay Tax" button Tax payment is done.

Screen 2:

Clicking on "Zonal-wise report" hyper link on home page user is redirected to screen 2 showing the report of zone wise property tax collection, the report should show zone wise amount collected for "owner" and "tenanted" types of property as shown below:

Zonal wise Collection of Property tax for the year 2014		
Zone Name	Property Type	Amount collected
Zone A	Owner	₹ 56,999.92
	Tenanted	₹ 43,999.50
Zone B	Owner	₹ 4,44,999.20
	Tenanted	₹ 8,90,899.10
Zone C	Owner	₹ 2,20,000.22
	Tenanted	₹ 8,67,000.50