



SRI RAMACHANDRA

INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Category - I Deemed to be University) Porur, Chennai

SRI RAMACHANDRA FACULTY OF ENGINEERING AND TECHNOLOGY

TAX CALCULATOR: A WEB-BASED APPLICATION

CAD23IN101 – Internship - I

PROJECT REPORT

Submitted by

JOTHIPRIYAN M A – E5223013

In partial fulfilment for the award of the degree of

BACHELOR OF SCIENCE

in

COMPUTER SCIENCE

(ARTIFICIAL INTELLIGENCE AND DATA ANALYTICS)

Sri Ramachandra Faculty of Engineering and Technology

Sri Ramachandra Institute of Higher Education and Research, Porur, Chennai -

600116

JULY, 2024



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BONAFIDE CERTIFICATE

Certified that this project report “**TAX CALCULATOR: A WEB-BASED APPLICATION**” is the bonafide record of work done by “**JOTHIPRIYAN M A - E5223013**” who carried out the internship work under my supervision.

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Evaluation Date:



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I am grateful to all the members of Sri Ramachandra Faculty of Engineering and Technology, my beloved parents and friends for extending the support, who helped me to overcome obstacles in the study.

TABLE OF CONTENTS

CHAPTER NO.	TITLE	PAGE NO.
	ABSTRACT	
	LIST OF TABLES	
	LIST OF FIGURES	
1	INTRODUCTION	
	1.1 INTRODUCTION TO FRONT-END DEVELOPMENT	1
	1.2 PURPOSE	1
	1.3 PROJECT OVERVIEW	1
2	LITERATURE REVIEW	2
3	PROPOSED METHODOLOGY	3
4	IMPLEMENTATION	5
	APPENDICES	
	Appendix-1: Code – Technical detail	7
5	RESULTS AND DISCUSSIONS	16
	REFERENCES	18
	WORKLOG	19

LIST OF FIGURES

S.NO.	DISCRIPTION	PAGE NO.
1.	Old and New Regime slabs	6
2.	Home page layout	16
3.	Input form step- 1	16
4.	Input form step- 2	17
5.	Tax Calculation Result	17

ABSTRACT

The Tax Calculator project is a web-based application designed to assist users in determining their tax liabilities under both the old and new tax regimes in India. This interactive tool allows users to input their age, annual income, and various eligible deductions to calculate the taxable income and the corresponding taxes for both regimes. By providing a comparison between the old and new regimes, the application helps users decide which tax regime is more beneficial for their financial situation. The project combines HTML for structure, CSS for styling, and JavaScript for dynamic functionality, making it a user-friendly and efficient solution for personal tax planning.

CHAPTER 1

INTRODUCTION

1.1. INTRODUCTION TO FRONT-END DEVELOPMENT

Front-end development refers to the part of web development that deals with the user interface and user experience. It involves creating everything that users see and interact with on their browsers. Front-end developers use a combination of technologies to build visually appealing and responsive websites. The key Technologies of Front end Development are HTML, CSS (Cascading Style Sheet) and JavaScript.

1.2. OBJECTIVES

- Collect user information such as age, annual income, and eligible deductions.
- Calculate tax liabilities under both old and new regimes.
- Provide a clear comparison between the old and new tax regimes to help users make informed decisions.
- Create an intuitive interface that allows users to easily input their financial details and view the results.

1.3. PROJECT OVERVIEW

The Tax Calculator project is a web-based application designed to help users calculate their tax liabilities under both the old and new tax regimes in India. Users can enter their age, annual income, and various deductions to receive a detailed comparison of their taxes under each regime. The application aims to provide a clear and accurate calculation, helping users make informed decisions about which tax regime is more beneficial for them. The project utilizes HTML for structure, CSS for styling, and JavaScript for dynamic interactions and calculations. It offers a user-friendly interface, ensuring accessibility for users of all backgrounds.

CHAPTER 2

LITERATURE REVIEW

2.1. COMPARATIVE ANALYSIS

- **Features:** All three platforms offer similar features in terms of tax calculation and regime comparison. ClearTax and H&R Block provide more comprehensive options and detailed explanations.
- **Usability:** ClearTax and H&R Block stand out for their intuitive interfaces and mobile-friendly designs. TaxSmile, while functional, lacks the polish and user aids of its competitors.
- **User Experience:** ClearTax excels in providing educational resources, making it a strong choice for users seeking to understand tax laws better. H&R Block offers robust personalized support, enhancing user confidence in the calculations. TaxSmile provides a basic, no-frills experience suitable for straightforward calculations.

2.2. IMPLICATIONS FOR OUR PROJECT

- **Comprehensive Features:** Ensure the calculator supports various deductions and provides detailed comparisons between old and new regimes.
- **Usability:** Focus on a clean, user-friendly interface with clear instructions and visual aids.
- **Enhanced User Experience:** Provide educational resources and possibly offer customer support options to help users navigate the tax calculation process.

CHAPTER 3

METHODOLOGY

3.1 DESIGN AND PLANNING

The design and planning of the Tax Calculator project involved several key stages, each aimed at ensuring a comprehensive, user-friendly, and functional application. The following sections outline the steps taken from initial concept to final implementation.

- **Objective:** To create a web-based tax calculator that compares tax liabilities under the old and new tax regimes in India.
- **Key Features:**
 - Input fields for age, income, and various tax deductions.
 - Calculation of tax liabilities for both old and new tax regimes.
 - Display of results and a conclusion indicating the better regime.
 - User-friendly interface with step-by-step guidance.

3.2 TECHNICAL SPECIFICATIONS

- **Frontend Technologies:**
 - **HTML:** Structure and content of the web pages.
 - **CSS:** Styling and layout of the web pages.
 - **JavaScript:** Dynamic interactions, form handling, and tax calculations.

3.3 DIFFERENT PHASE

3.3.1 User Interface Design:

- **Form Step 1:** Collects basic user information such as age and income.
- **Form Step 2:** Collects detailed information on various tax deductions.
- **Result Page:** Displays the calculated tax for both regimes and a conclusion on the better regime.

3.3.2 Implementation Phase:

HTML Structure:

- Created a multi-step form with sections for user input and results.
- Used semantic HTML elements to ensure accessibility and SEO benefits.

CSS Styling:

- Applied custom styles to create a clean, modern look.
- Ensured responsive design for usability on various devices.

JavaScript Functionality:

- Developed functions to handle form transitions between steps.
- Implemented tax calculation logic based on user inputs.
- Created a function to compare the results and display the conclusion.

3.4 TESTING AND VALIDATION

- **Unit Testing:** Tested individual functions for accurate tax calculations.
- **User Testing:** Conducted user testing to ensure the interface was intuitive and the process was straightforward.
- **Bug Fixing:** Identified and resolved bugs to improve functionality and user experience.

3.5 DEPLOYMENT AND MAINTENANCE

- **Deployment:** Uploaded the final project to a web server for public access.
- **Maintenance:** Established a plan for regular updates to ensure compliance with changing tax laws and continuous improvement based on user feedback.

CHAPTER 4

IMPLEMENTATION

4.1 USER INPUT FORMS

- **Multi-Step form:**

Step-1 : Basic Information

- **Age:** Input field to enter the user's age, which affects the tax calculation under the old regime.
- **Income:** Input field to enter the user's total income for the financial year.

Step 2: Deductions and Exemptions

- Section 80C (Investments in PPF, EPF, NSC, etc.)
- Section 80D (Medical insurance)
- Section 80G (Donations)
- Section 80CCD (NPS contributions)
- Section 80TTA (Interest on savings account)
- Section 80E (Education loan interest)
- Section 80GG (Rent paid)
- Section 87A (Tax rebate)

4.2 TAX CALCULATION

New Regime Tax Calculation:

Flat Slabs: Applies a flat tax rate structure without considering the user's age.

Deductions: Deducts the total amount of eligible deductions from the user's income before applying the tax slabs.

Old Regime Tax Calculation:

Age-Based Slabs: The calculation considers different age groups (<60 years, 60-80 years, >80 years) and applies the respective tax slabs.

Deductions: Deducts the total amount of eligible deductions from the user's income before applying the tax slabs.

Progressive Tax Rates: Applies progressive tax rates to the taxable income to calculate the total tax liability.

Tax Slab (₹)	Rates according to Old Tax	Rates according to New Tax Rates
0 - 2,50,000	0%	0%
2,50,000 - 5,00,000	5%	5%
5,00,000 - 7,50,000	20%	10%
7,50,000 - 10,00,000	20%	15%
10,00,000 - 12,50,000	30%	20%
12,50,000 - 15,00,000	30%	25%
15,00,000 - & above	30%	30%

4.3 RESULT DISPLAY AND COMPARISON

Tax Amounts: Displays the calculated tax amounts for both the old and new regimes.

Old Regime Tax: ₹<amount>

New Regime Tax: ₹<amount>

Comparison: Compares the tax amounts and displays a conclusion indicating which regime is better based on the lower tax liability.

If the old regime tax is lower: "Old regime is better."

If the new regime tax is lower: "New regime is better."

APPENDICES

APPENDIX-1: CODE – TECHNICAL DETAIL

```
<!DOCTYPE html>

<head>

  <title>Tax Calculator</title>

  <link rel="stylesheet" href="styles.css">

</head>

<body>

  <div class="container">

    <h1>Tax Calculator</h1>

    <marquee behavior="Again" direction="">Old Tax Regime :

      Individuals (Age < 60 years) -

        Up to Rs 2,50,000: Nil ||

        Rs 2,50,001 to Rs 5,00,000: 5% ||

        Rs 5,00,001 to Rs 10,00,000: 20% ||

        Above Rs 10,00,000: 30% ||

      Resident Senior Citizens (Age ≥ 60 years but < 80 years) -

        Up to Rs 3,00,000: Nil ||

        Rs 3,00,001 to Rs 5,00,000: 5% ||

        Rs 5,00,001 to Rs 10,00,000: 20% ||

        Above Rs 10,00,000: 30% ||

      Resident Super Senior Citizens (Age ≥ 80 years) ||

        Up to Rs 5,00,000: Nil ||

        Rs 5,00,001 to Rs 10,00,000: 20% ||

        Above Rs 10,00,000: 30%

    </marquee>

    <marquee behavior="Again" direction="">New Tax Regime :
```

Up to ₹2,50,000: Nil ||
 ₹2,50,001 - ₹5,00,000: 5%
 ₹5,00,001 - ₹7,50,000: 10% ||
 ₹7,50,001 - ₹10,00,000: 15% ||
 ₹10,00,001 - ₹12,50,000: 20% ||
 ₹12,50,001 - ₹15,00,000: 25% ||
 Above ₹15,00,001: 30%</marquee>

```
<div id="form-step-1">
```

```
<label for="age">Age:</label>
```

```
<input type="number" id="age" required>
```

```
<label for="income">Annual Income (₹):</label>
```

```
<input type="number" id="income" required>
```

```
<button onclick="goToStep2()">Next</button>
```

```
</div>
```

```
<div id="form-step-2" style="display: none;">
```

```
<label for="deduction-80c">Deduction 80C (₹):
```

```
<button class="info-button" onclick="showInfo('info-80c')">i</button>
```

```
<div id="info-80c" class="info-details" style="display: none;">
```

Deduction 80C allows a maximum deduction of ₹1,50,000 for investments in PPF, NSC, life insurance premium, etc.

```
</div></label>
```

```
<input type="number" id="deduction-80c" required>
```

```
<label for="deduction-80d">Deduction 80D (₹):
```

```
<button class="info-button" onclick="showInfo('info-80d')">i</button>
```

```
<div id="info-80d" class="info-details" style="display: none;">
```

Deduction 80D allows a maximum deduction for health insurance premiums. For individuals, it's ₹25,000 and for senior citizens, it's ₹50,000.

</div></label>

<input type="number" id="deduction-80d" required>

<label for="deduction-80g">Deduction 80G (₹):

<button class="info-button" onclick="showInfo('info-80g')">i</button>

<div id="info-80g" class="info-details" style="display: none;">

Any donations made to charitable organizations are fully exempt from tax calculations.

</div></label>

<input type="number" id="deduction-80g" required>

<label for="deduction-80ccd">Deduction 80CCD (1B) (₹):

<button class="info-button" onclick="showInfo('info-80ccd')">i</button>

<div id="info-80ccd" class="info-details" style="display: none;">

Tax exemption of up to Rs. 2 lakh for money deposited in the national pension system.

</div></label>

<input type="number" id="deduction-80ccd" required>

<label for="deduction-80tta">Deduction 80TTA (₹):

<button class="info-button" onclick="showInfo('info-80tta')">i</button>

<div id="info-80tta" class="info-details" style="display: none;">

Deduction 80TTA allows a deduction up to ₹10,000 for interest income from savings accounts.

</div></label>

<input type="number" id="deduction-80tta" required>

<label for="deduction-80e">Deduction 80E (₹):

<button class="info-button" onclick="showInfo('info-80e')">i</button>

<div id="info-80e" class="info-details" style="display: none;">

Interest on education loan enjoys a 100% tax rebate for up to 8 years.

</div></label>

<input type="number" id="deduction-80e" required>

<label for="deduction-80gg">Deduction 80GG (₹):

<button class="info-button" onclick="showInfo('info-80gg')">i</button>

<div id="info-80gg" class="info-details" style="display: none;">

Tax exemption on income spent towards paying house rent (house rent allowance.)

</div></label>

<input type="number" id="deduction-80gg" required>

<label for="deduction-80gg">Deduction 87A (₹):

<button class="info-button" onclick="showInfo('info-87a')">i</button>

<div id="info-87a" class="info-details" style="display: none;">

Income below Rs. 5 lakh is eligible for a tax rebate of up to Rs. 12,500.

</div></label>

<input type="number" id="deduction-87a" required>

```
<button onclick="calculateTax()">Calculate</button>
</div>
<div id="result" class="result" style="display: none;">

    <p id="conclusion"></p>
    <button onclick="window.location.reload()">Calculate Again</button>
</div>
</div>
<script src="script.js"></script>
</body>
</html>
```

```

function goToStep2() {
    document.getElementById('form-step-1').style.display = 'none';
    document.getElementById('form-step-2').style.display = 'block';
}

function showInfo(id) {
    const infoElement = document.getElementById(id);
    if (infoElement.style.display === 'none' || infoElement.style.display === "") {
        infoElement.style.display = 'block';
    } else {
        infoElement.style.display = 'none';
    }
}

function calculateTax() {
    const age = parseInt(document.getElementById('age').value) || 0;
    const income = parseFloat(document.getElementById('income').value) || 0;

    const deduction80C = parseFloat(document.getElementById('deduction-80c').value) || 0;
    const deduction80D = parseFloat(document.getElementById('deduction-80d').value) || 0;
    const deduction80G = parseFloat(document.getElementById('deduction-80g').value) || 0;
    const deduction80CCD = parseFloat(document.getElementById('deduction-80ccd').value) || 0;
    const deduction80TTA = parseFloat(document.getElementById('deduction-80tta').value) || 0;
    const deduction80E = parseFloat(document.getElementById('deduction-80e').value) || 0;

```

```
const deduction80GG = parseFloat(document.getElementById('deduction-80gg').value) || 0;
```

```
const deduction87A = parseFloat(document.getElementById('deduction-87a').value) || 0;
```

```
const totalDeductions = deduction80C + deduction80D + deduction80G + deduction80CCD + deduction80TTA + deduction80E + deduction80GG + deduction87A;
```

```
const taxableIncome = income - totalDeductions;
```

```
const oldRegimeTax = calculateOldRegimeTax(age, taxableIncome);
```

```
const newRegimeTax = calculateNewRegimeTax(taxableIncome);
```

```
document.getElementById('form-step-2').style.display = 'none';
```

```
document.getElementById('result').style.display = 'block';
```

```
conc(oldRegimeTax, newRegimeTax);
```

```
}
```

```
function conc(oldRegimeTax, newRegimeTax) {
```

```
    let conclusion = Old Regime Tax: ₹${oldRegimeTax}\n\nNew Regime Tax: ₹${newRegimeTax}\n\n;
```

```
    if (newRegimeTax > oldRegimeTax) {
```

```
        conclusion += "Old regime is better.";
```

```
    } else {
```

```
        conclusion += "New regime is better ";
```

```
    }
```

```
    document.getElementById("conclusion").innerText = conclusion;
```

```
}
```

```
function calculateOldRegimeTax(age, income) {
```

```

let tax = 0;

if (age < 60) {
    if (income <= 250000) {
        tax = 0;
    } else if (income <= 500000) {
        tax = (income - 250000) * 0.05;
    } else if (income <= 1000000) {
        tax = (250000 * 0.05) + ((income - 500000) * 0.2);
    } else {
        tax = (250000 * 0.05) + (500000 * 0.2) + ((income - 1000000) * 0.3);
    }
} else if (age < 80) {
    if (income <= 300000) {
        tax = 0;
    } else if (income <= 500000) {
        tax = (income - 300000) * 0.05;
    } else if (income <= 1000000) {
        tax = (200000 * 0.05) + ((income - 500000) * 0.2);
    } else {
        tax = (200000 * 0.05) + (500000 * 0.2) + ((income - 1000000) * 0.3);
    }
} else {
    if (income <= 500000) {
        tax = 0;
    } else if (income <= 1000000) {
        tax = (income - 500000) * 0.2;
    } else {
        tax = (500000 * 0.2) + ((income - 1000000) * 0.3);
    }
}

```

```

    }
}
return tax;
}

function calculateNewRegimeTax(income) {
    let tax = 0;

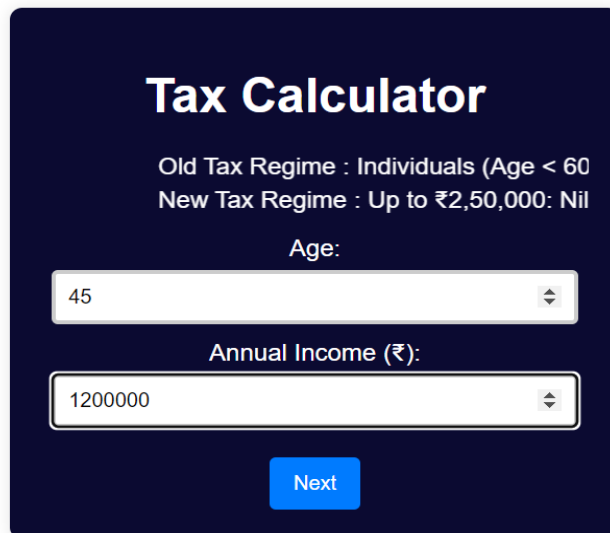
    if (income <= 250000) {
        tax = 0;
    } else if (income <= 500000) {
        tax = (income - 250000) * 0.05;
    } else if (income <= 750000) {
        tax = (250000 * 0.05) + ((income - 500000) * 0.1);
    } else if (income <= 1000000) {
        tax = (250000 * 0.05) + (250000 * 0.1) + ((income - 750000) * 0.15);
    } else if (income <= 1250000) {
        tax = (250000 * 0.05) + (250000 * 0.1) + (250000 * 0.15) + ((income - 1000000) * 0.2);
    } else if (income <= 1500000) {
        tax = (250000 * 0.05) + (250000 * 0.1) + (250000 * 0.15) + (250000 * 0.2) + ((income - 1250000) * 0.25);
    } else {
        tax = (250000 * 0.05) + (250000 * 0.1) + (250000 * 0.15) + (250000 * 0.2) + (250000 * 0.25) + ((income - 1500000) * 0.3);
    }

    return tax;
}

```

RESULTS

APPENDIX: SCREENSHOTS



Tax Calculator

Old Tax Regime : Individuals (Age < 60)
New Tax Regime : Up to ₹2,50,000: Nil

Age:

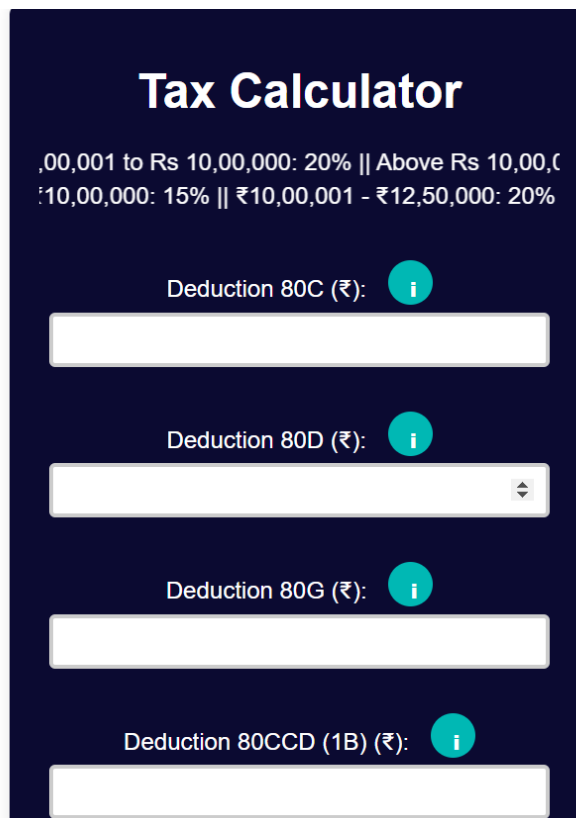
45

Annual Income (₹):

1200000


Next


Step 1: Basic Information





Tax Calculator

,00,001 to Rs 10,00,000: 20% || Above Rs 10,00,000: 30%
Below Rs 10,00,000: 15% || ₹10,00,001 - ₹12,50,000: 20%


Deduction 80C (₹): 


Deduction 80D (₹): 


Deduction 80G (₹): 


Deduction 80CCD (1B) (₹): 

Step 2: Deductions and Exemptions (i)

Deduction 80TTA (₹): 

Deduction 80E (₹): 

Deduction 80GG (₹): 

Deduction 87A (₹): 

[Calculate](#)

Step 2: Deductions and Exemptions (ii)

Tax Calculator

Individuals (Age < 60 years) - Up to Rs 2,50,000: Nil ||
to ₹2,50,000: Nil || ₹2,50,001 - ₹5,00,000: 5% ₹5,

Old Regime Tax: ₹172500

New Regime Tax: ₹115000

New regime is better

[Calculate Again](#)

Step 3: Results Display and Comparison

1 REFERENCES

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WORKLOG

From	To	Task Done
15.05.24	28.05.24	<ul style="list-style-type: none">• Introduction of HTML and Basic HTML Tags.• Basic CSS Work Relative To Assignment.
29.05.24	05.06.24	<ul style="list-style-type: none">• Create a Structured Website.• Created a simple Demo Project
06.06.24	16.06.24	<ul style="list-style-type: none">• Introduction to Basic JavaScript
17.06.24	22.06.24	<ul style="list-style-type: none">• Research on Tax and Tax Calculator
23.06.24	30.06.24	<ul style="list-style-type: none">• Created a Minimal Tax Calculator Website
01.07.24	09.07.24	<ul style="list-style-type: none">• Improved UI and comparison in the result page• Prepared for the final review