

# TaxSarathi



## Sustainable Goal : Peace and justice Strong Institutions

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# Introduction to Project

- ❖ TaxSarathi simplifies Indian taxation, addressing the complexities and issues that often arise, with a user-friendly platform, while enhancing financial literacy.
- ❖ We provide tools and guidance for confident tax navigation, ultimately securing financial futures in the digital age.

# Problem Definition

Taxes are important for a society but their complexity make it difficult for a individual to grasp tax system, deductions and filing which can lead to error.

# Goals

## **Goals of TaxSarthi:**

- ❖ **Simplify Tax Filing:** The primary goal is to simplify the tax-filing process, making it accessible and understandable for individuals with diverse financial backgrounds.
- ❖ **Educate Users:** Educate users with tax-related blogs and resources to boost their financial knowledge.
- ❖ **Ensure Accuracy:** Ensuring accurate tax calculations and minimizing errors in tax submissions.

# Literature Survey

Paper Name	Summary
"A Study on Direct Taxation in India"	The paper analyzes and interprets the importance of direct taxation in India, its evolution, structure, and challenges. The paper also suggests some measures to improve the direct tax system in India.
"An Analysis of the Indian Tax Structure"	The paper is a brief overview of the Indian tax system, its history, challenges, and reforms. It focuses on the introduction and implementation of the Goods and Services Tax (GST), which is a unified indirect tax regime that aims to simplify and rationalize the tax structure in India.
"A Case Study on the e-Filing System of the Income Tax Department of India"	The study focuses on the online system of the e-Filing System of the Income Tax Department of India.
"Income Tax Department"	It is the official website that contains the most accurate information, but it is not easily accessible to normal individuals
"ClearTax"	ClearTax is a website that offers software and expert services for tax and financial needs of individuals and businesses in India

# Limitation of Existing system or research gap

1. Limitations of Manual ITR Filing:
  - a. Costly hiring of Chartered Accountants (CA).
  - b. CA workload and meeting multiple client deadlines.
  - c. Potential overcharging for services due to client unfamiliarity with tax regulations.
2. Limitations of Online ITR Filing:
  - a. Poor usability and user experience on government websites.
  - b. Slow website loading times, especially during peak traffic.
  - c. Private online applications may have hidden fees and limited customer support.

# Hardware, Software, Tools and constraint

## 1. Hardware:

- a. A browser in mobile or laptop and a good internet.

## 2. Software Requirements:

- a. UI Design: Figma
- b. Frontend: React, CSS, JavaScript.
- c. Backend : Node JS, Mongo DB.

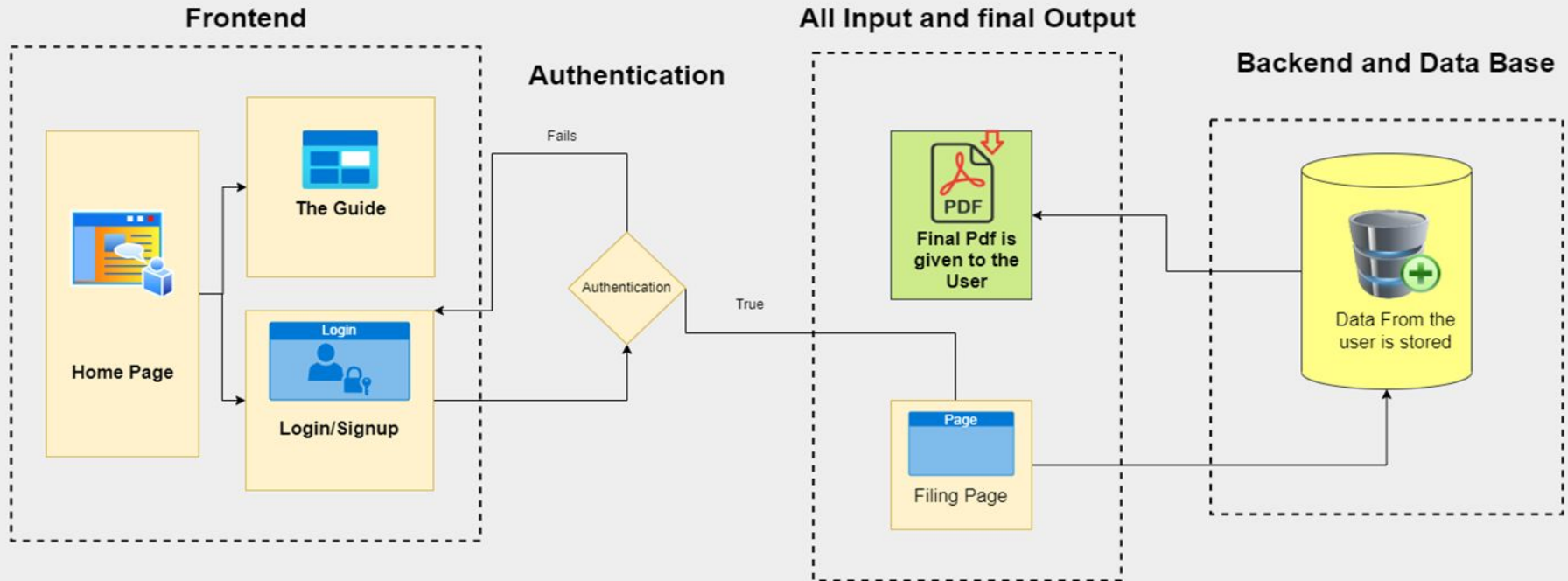


# Proposed System

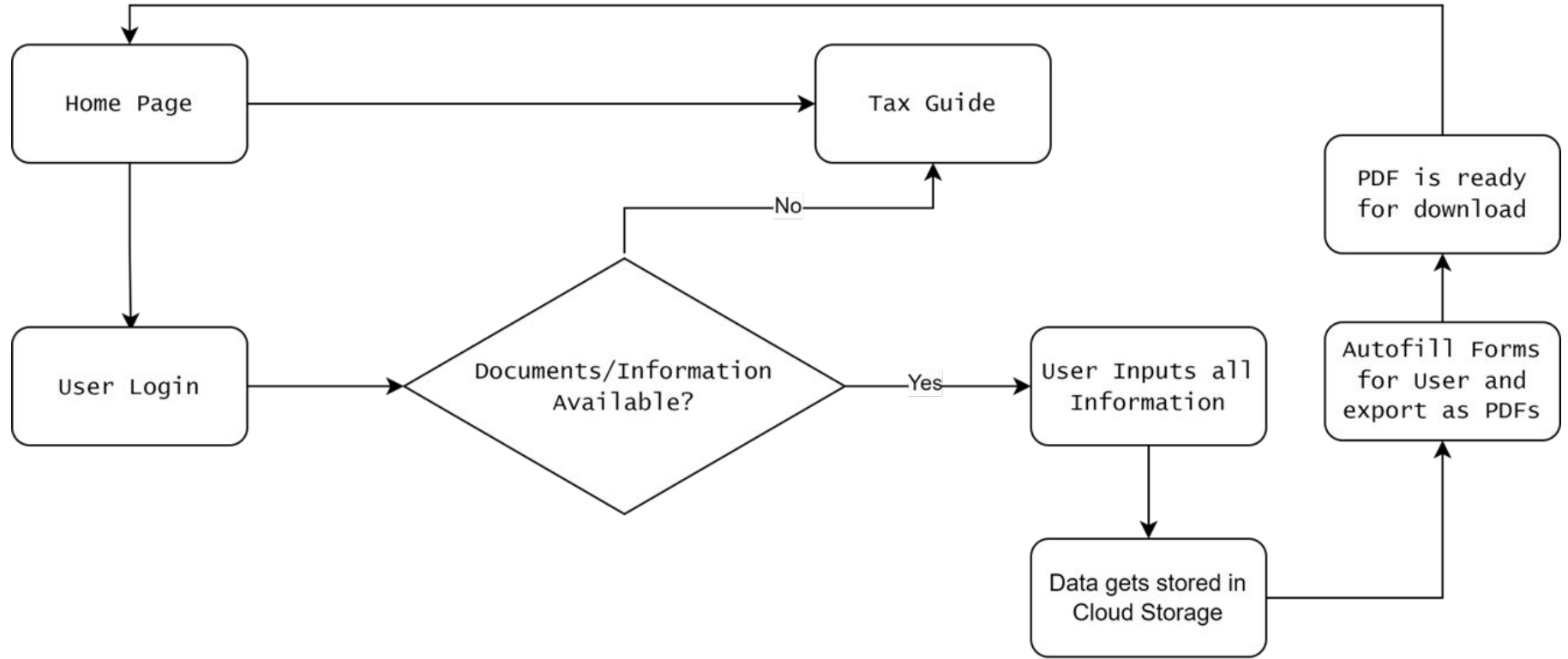
**Project Proposal:** Create a guided web-based platform for taxation.

- Simplified Tax Information: Provide insightful content in user-friendly terms.
- Intuitive Interface: Ensure easy understanding of complex tax concepts.
- TaxSarathi Platform: A user-friendly website simplifying tax filing and educating non-financial individuals.
- Guided Tax Filing: Helps doctors, engineers, students, and other salaried professionals to file taxes accurately.

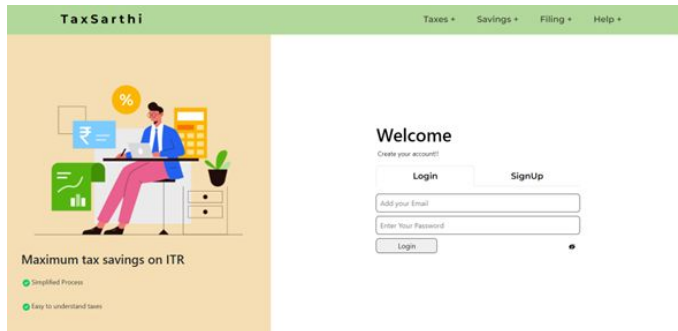
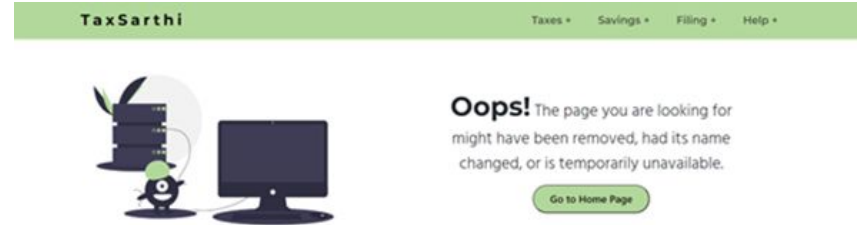
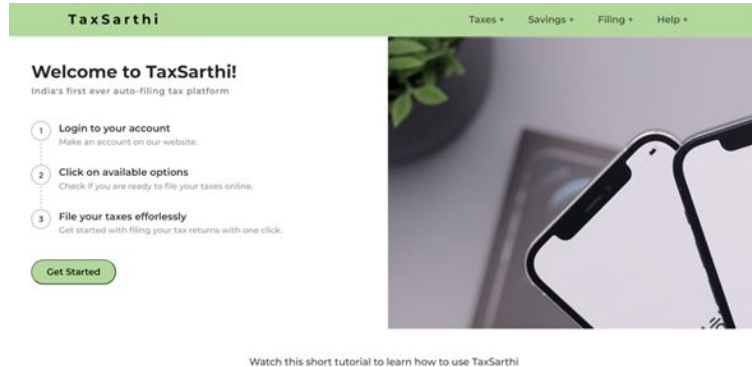
# Architecture/ Framework (Modular Diagram)



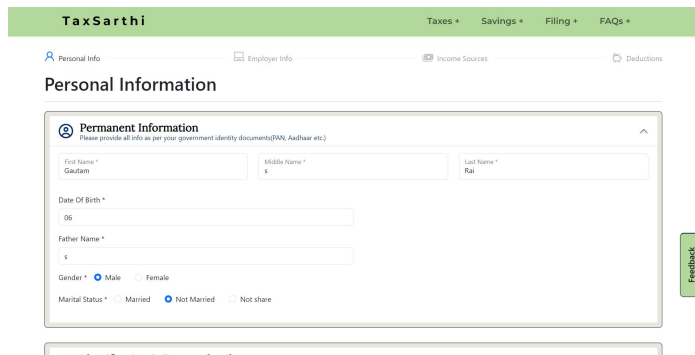
# Methodology : Process Design



# Implementation details(GUI Screenshot, Dataset Used)



# Implementation details(GUI Screenshot, Dataset Used)



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Taxes +

Savings +

Filing +

FAQs +

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12 July, 2023

### A Beginner's Guide to Taxes

**What are taxes?**

Taxes are an integral part of our lives, shaping economies and funding public services. But for many, they remain a daunting and often confusing subject. Fear not! We're here to break it down for you. In this introductory post, we'll cover the basics. First and foremost, what are taxes? Taxes are compulsory financial contributions imposed by governments on individuals and businesses to fund public expenditures. These expenditures can range from infrastructure development to social welfare programs, education, healthcare, and more.

**Types of Taxes**

1. **Income Tax:** Perhaps the most familiar form of taxation, income tax is levied on the earnings of individuals and businesses. The amount you pay typically depends on your income level, with different tax brackets applying.

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Taxes +

Savings +

Filing +

FAQs +

Personal Info

Employer Info

Income Sources

Deductions

### Personal Information

Permanent Information

Please provide all info as per your government identity documents(PAN, Aadhaar etc.)

First Name \*

Gautam

Middle Name \*

S

Last Name \*

Rai

Date Of Birth \*

06

Father Name \*

S

Gender \*

Male

Female

Marital Status \*

Married

Not Married

Not share

Feedback

Tax Invoice

Invoice Number #10092

Invoice Date Mar 18, 2024

AY 2023-24

Personal Details

N/A

Email: N/A

Mobile No: N/A

Aadhar Card No: N/A

Pan Card: N/A

Employer Details

N/A

employerAddress: N/A

employerPanNumber: N/A

tanNumber: N/A

employeeReferenceNo: N/A

Date Of Birth	N/A	Status:	Individual
Father's Name	N/A	Residential Status:	Resident
Bank A/C no.:	45784	Gender:	N/A
E-filing Status	-	Selected tax regime	N/A

### Tax Summary

Salary			N/A
Gross Total Income			N/A
Total Deductions		Old Regime	New Regime
		N/A	N/A
Total Tax Payable		N/A	N/A

### Income Tax Summary

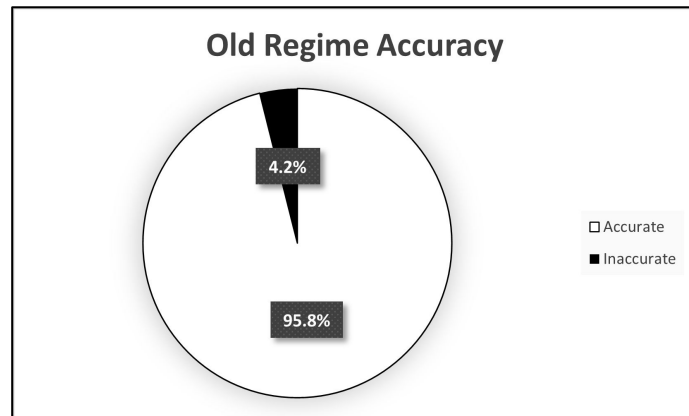
	Old Regime	New Regime
Total Income	N/A (TotalIncome - Deductions)	N/A
Basic Exemption	N/A	-
Income Tax	N/A	N/A
Health and Education Cess	N/A	N/A
Total Tax	N/A	N/A

# Results Obtained

- We conducted extensive calculations on incomes ranging from ₹10,000 to ₹50 lakhs, with increments of ₹10,000. Through rigorous testing, our algorithm demonstrated an impressive accuracy rate of 97.9% across all income ranges.
- Furthermore, to validate the reliability of our algorithm, we compared the results with a comprehensive dataset comprising more than 100 real samples collected from Chartered Accountants (CAs). This comparative analysis reaffirmed the high accuracy of our calculations, with the algorithm consistently yielding highly accurate results when benchmarked against real-world scenarios.

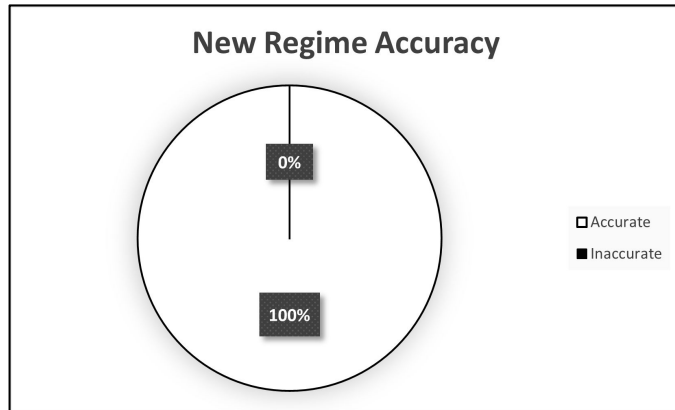
# Results Obtained

- TaxSarthi achieved an impressive accuracy rate of 95.8% in computing tax liabilities under the old regime, showcasing its robustness in handling various input combinations.
- However, it's important to note that the accuracy is not 100% due to the presence of multiple cases of deductions in the old tax regime.
- Tax calculations involve deducting various allowances and exemptions from the total income to arrive at the final taxable income.
- This complexity in deduction calculations may lead to minor discrepancies in the accuracy of tax assessments, particularly for higher values.



# Results Obtained

- TaxSarathi adapted to the new tax regime with ease, incorporating updated tax laws and regulations.
- Impressively, it maintained a perfect accuracy rate of 100% in calculating tax liabilities, as the tax calculation is directly based on the total income without involving deductions.
- This streamlined process contributed to the higher accuracy rate observed in the new regime.





# Results Obtained

## **Overall Effectiveness:**

- TaxSarathi's overall effectiveness across both old and new tax regimes was remarkable, establishing it as a reliable and accurate platform for users to simplify the complex process of taxation.

## **Unified Performance:**

- TaxSarathi consistently delivered an outstanding accuracy rate of nearly 97.9% across both regimes, reflecting its reliability and effectiveness in providing accurate tax assessments regardless of the tax framework in place.

# Evaluation Measures

- **Security Testing:** Conduct security assessments to identify vulnerabilities and ensure that user data is protected.
- **Cross-Browser and Cross-Device Testing:** Test the website on different web browsers (e.g., Chrome, Firefox, Safari) and various devices (e.g., desktop, tablet, mobile) to ensure consistent functionality and appearance.
- **Unit Testing:** Perform unit tests on individual components, functions, and modules of the code to ensure that each part works as expected.

# Conclusion

TaxSarathi is your ultimate solution for simplifying tax-filing procedures and empowering individuals from diverse financial backgrounds.

# Future Scope

- **Testing and Validation:** The next phase involves rigorous testing to ensure the accuracy and functionality of our website, with a focus on validating tax calculation against real data.
- **OCR Integration:** Explore the benefits of integrating OCR technology to simplify data input, enhancing the user experience.
- **Mobile App Development:** Consider the development of a mobile app to make our services even more accessible and convenient for users on the go.

# References

- Pradip Kumar Das , ”A study on direct taxation in India” , Direct Research Journal of Social Science and Educational Studies: ISSN 2449-0806 , 9 September, 2019.
- Yadawananda Neog & Achal Kumar Gaur , ”Tax structure and economic growth: a study of selected Indian states” , Journal of Economic Structures , 09 May 2020.
- Anjali Tyagi , ”An Analysis of Indian Tax Structure” , Social Science Research Network , 1 Feb 2022.
- Harjit Singh, Arpan Kumar Kar and P. Vigneswara Ilavarasan, "A Case Study on e-Filing System of Income Tax Department of India" , Springer, 29 August 2018
- Income Tax Return filing process: <https://incometaxindia.gov.in/Pages/tps/default.aspx#slidetarget6>
- Investopedia : <https://www.investopedia.com/>
- Rebate: <https://cleartax.in/s/income-tax-rebate-us-87a>
- E-Irs Mobile App