

## Acknowledgement

Knowledge in itself is a continuous process. At this moment of our substantial enhancement, we rarely find words to express our gratitude towards those who were constantly involved with us. We take this opportunity to express our profound gratitude and deep regards to our guide Mr. Jalpesh Vasa for his exemplary guidance, monitoring and constant encouragement throughout the course of this project. The blessing, help and guidance given by him time to time shall carry us a long way in the journey of life on which we are about to embark. The completion of any inter disciplinary project depends upon coordination, cooperation and combined efforts of several resources of knowledge, creativity, skill, energy and time. The work being accomplished now, we feel our most sincere urge to recall and knowledge through these lines, trying our best to give full credit wherever it deserves. It's our good fortune that we had support and well wishes of many. We are thankful to all and those names which have been forgotten to acknowledge here but contributions have not gone unnoticed.

**“We may not achieve everything we dream, but we cannot achieve anything unless we dream.”**

With Sincere regards,  
Dhruval Shah (16IT120)

## **Abstract**

Income Tax Act, 1961 governs the taxation of incomes generated within India and of incomes generated by Indians overseas. This study aims at presenting a lucid yet simple understanding of taxation structure of an individual's income in India. This project covers the basics of the Income Tax Calculation user just upload their salary slip and it will give your net annual income and amount payable for tax.

## List of tables

• Acknowledgement .....	01
• Abstract .....	02
• Chapter 1 Introduction.....	05
Project Overview .....	05
Scope (what it can do and can't do) .....	05
Objective.....	05
• Chapter 2 System Analysis .....	06
User Characteristics(Roles of users who is dealing with the system).....	06
Tools & Technology (Hardware/ Software Requirements- Minimum requirements to run the system).....	06
• Chapter 3 System Design.....	07
3.1 Data flow diagram .....	07
3.2 Data Storage Facility in Drupal .....	08
• Chapter 4 Implementation.....	09
Implementation Environment (Single vs Multi user, GUI vs Non GUI).....	09
Module Specification (Module wise flowchart).....	10
Coding Standards(Sample code of main module).....	11
Snapshots of project .....	19
• Chapter 5 Constraints .....	21
• Chapter 6 Conclusion(Learning Outcome-In your own words).....	22
• References .....	23

**List of figures**

- **Figure 1 Implementation Environment ..... 09**
- **Figure 2 User Details ..... 19**
- **Figure 3 Home Page.....19**
- **Figure 4 File Upload Module..... 20**
- **Figure 5 Output.....20**

# CHAPTER 1

## INTRODUCTION

### 1.1 Project Overview

Income tax generator is a project for calculation of income tax by uploading salary slip in pdf format and in background calculation perform and give output as tax based on their income. Drupal is used into this project for web framework. It is one of the best content management system framework. We can easily find income tax without any kind of help of agent.

#### 1.1.1 How to do

The project lies on the foundation of CMS architecture for example Drupal. CMS stands for content Management System.

A Drupal "content type" is a particular kind of content. For instance, in [Drupal 7](#), the default content types include "article", "basic page", and "forum topic".

Drupal makes it easy for you to make your *own* content types. Custom content types are one of the best reasons to learn Drupal.

### 1.2 Scope

#### What it can do

- Provides admin and user login
- Admin has the authority to make any user as admin as well as remove one.
- Upload salary slip in pdf format and calculate tax

#### What it can't do

- It can calculate tax for particular specific formatted pdf salary slip.
- All other formatted salary slip are not allowed.
- Above 2MB size of pdf are not allowed.

### 1.3 Objective

These is a website where user can easily calculate their income tax based on their salary slip. User just upload their salary slip in specific pdf format and wait for some second it will calculate your tax and after some second it will display a message which contains your amount payable tax and your salary. This website purely based on php content Management System as Drupal 7.

- To calculate income tax

## CHAPTER 2

### SYSTEM ANALYSIS

#### 2.1 User Characteristics

- Every system has their own characteristics but all gives different functionality from each other.
- Some web application required login or signup with authentication or email verification but this website does not require login or registration process till now because we want to keep it as simple as possible.
- User can just upload their salary slip nothing else and they easily get their income tax amount for pay without any agent fees.

#### 2.2 Tools and Technology

##### 2.2.1 Software requirement

1. Operating system : Microsoft windows
2. Front End : Drupal 8
3. Back End: Apache, Mysql
4. Acquia Dev Desktop 2

#### Programming Language

1. php
2. Bootstrap
3. HTML , css, js

#### About Drupal:

Drupal is software that you can download from Drupal.org and use to build a website. As a modern CMS, it has many features for managing a site through a GUI, including:

- creating and editing content with editor tools
- controlling publication status and workflows
- creating and managing custom URLs and menu items
- managing users and the access they have to content and features of the site
- organizing content with categories and listing pages
- moving blocks of content to different areas of the page

Underneath the powerful UI, there is a very flexible object-oriented framework, which has been built from the start to be modified and extended. This allows developers to finely tune a Drupal site to have the features and functionality you need. There is also a robust template layer using the Twig templating language, which lets you precisely customize the look of the site.

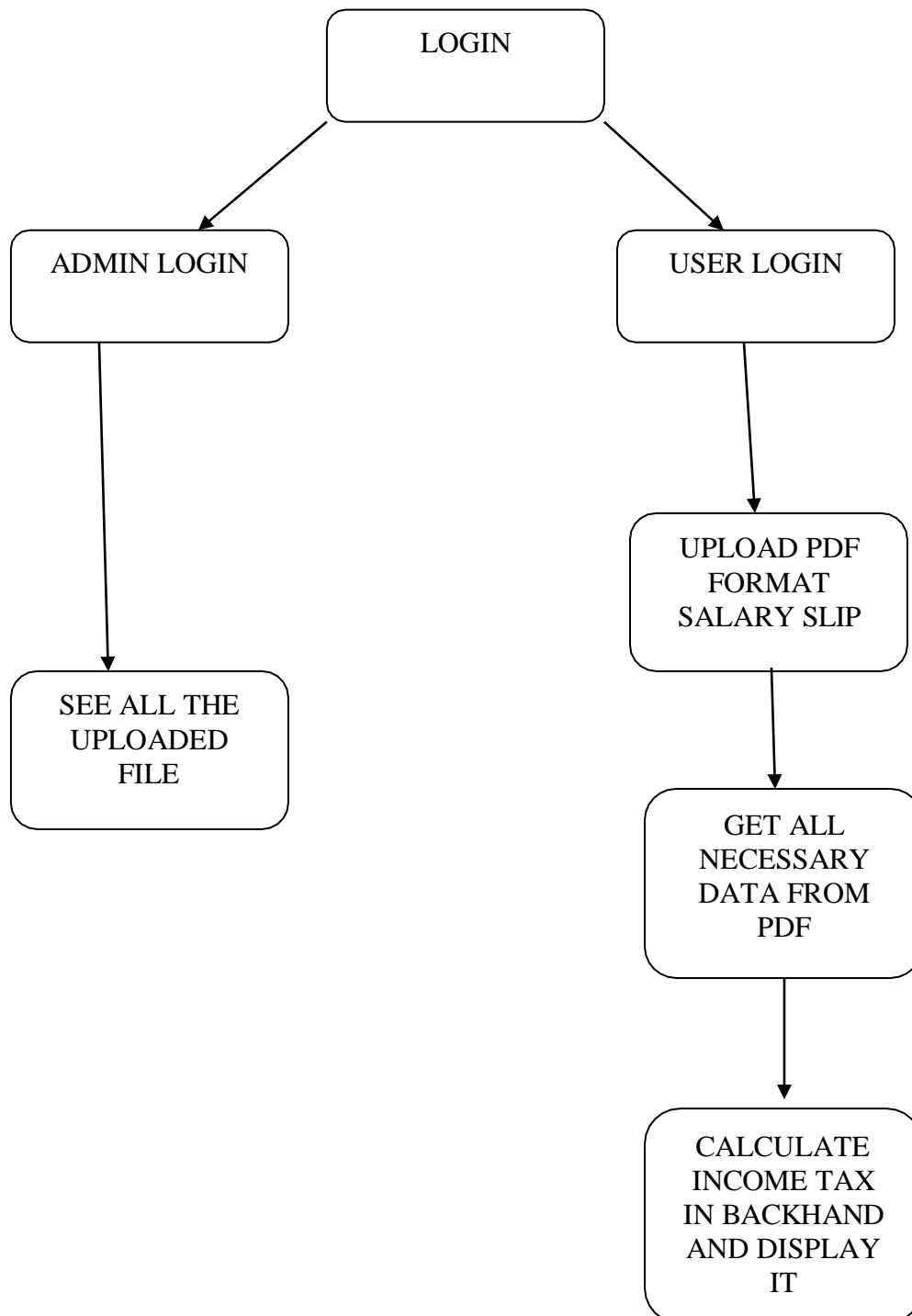
#### What is a content management system (CMS)?

A CMS (Content Management System) is software that helps you manage digital content. More specifically, a CMS like Drupal is a web application that allows one or more users to create, edit, publish, and control access to a website using a graphical user interface (GUI). Many modern content management systems use a database to store the content and a scripting language (in Drupal's case, PHP) to dynamically build the HTML needed to present the content to a web browser.

## CHAPTER 3

### SYSTEM DESIGN

#### 3.1 Data flow diagram:



### 3.2 Data Storage Facility in Drupal:

Drupal is a mainly CMS framework so all of their site content store in their database and manage through their database. In Drupal , there is a Database Administrator tool for admin user to store or retrieve or any kind of facility of database realated will provided by this tool.

#### Database Administration Tool

The module integrates [Adminer](#) and [Editor](#) into Drupal to allow for a fast and easy management of the database.

Adminer (formerly phpMinAdmin) is a full-featured database management tool written in PHP. Adminer and Editor is both easy-to-use and user-friendly database data editing tool. It is suitable for common users, as it provides high-level data manipulation.

#### Adminer Features:

- Connect to a database server with username and password
- Select an existing database or create a new one
- List fields, indexes, foreign keys and triggers of table
- Change name, engine, collation, auto\_increment and comment of table
- Alter name, type, collation, comment and default values of columns
- Add and drop tables and columns
- Create, alter, drop and search by indexes including fulltext
- Create, alter, drop and link lists by foreign keys
- Create, alter, drop and select from views
- Create, alter, drop and call stored procedures and functions
- Create, alter and drop triggers
- List data in tables with search, aggregate, sort and limit results
- Insert new records, update and delete the existing ones
- Supports all data types, blobs through file transfer
- Execute any SQL command from a text field or a file
- Export table structure, data, views, routines, databases to SQL or CSV
- Print database schema connected by foreign keys
- Display users and rights and change them (limited)
- Manage events and table partitions (MySQL 5.1)
- Schemas, sequences, user types (PostgreSQL)
- Extensive customization options
- Multilanguage

Both Adminer and Editor offers support for extensions. It is possible to overwrite some default Adminer functionality by a custom code. All you need is to add your AdminerPlugin Adminer API.

Works with MySQL, MariaDB, PostgreSQL, SQLite, MS SQL, Oracle, SimpleDB, Elasticsearch, MongoDB.



## CHAPTER 4

### IMPLEMENTATION

#### 4.1 Implementation Environment

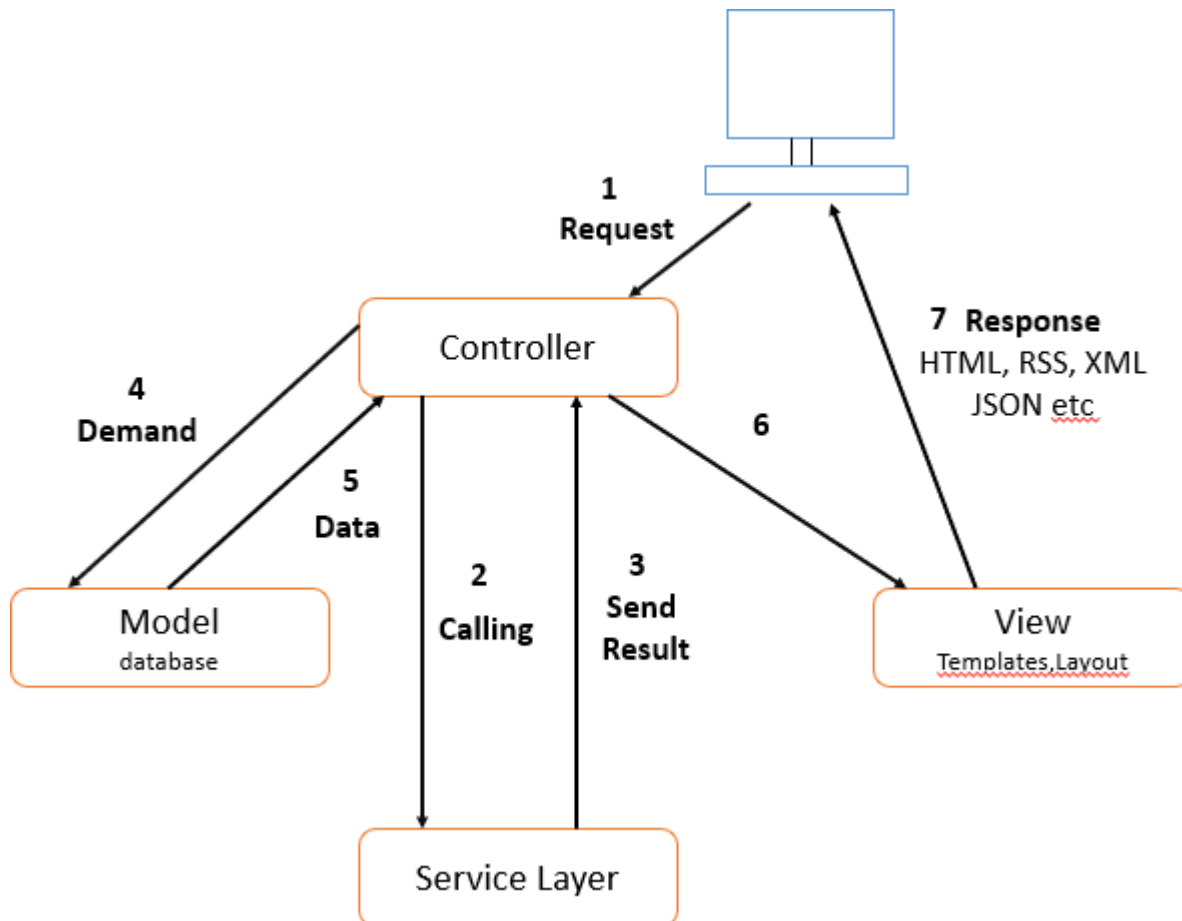
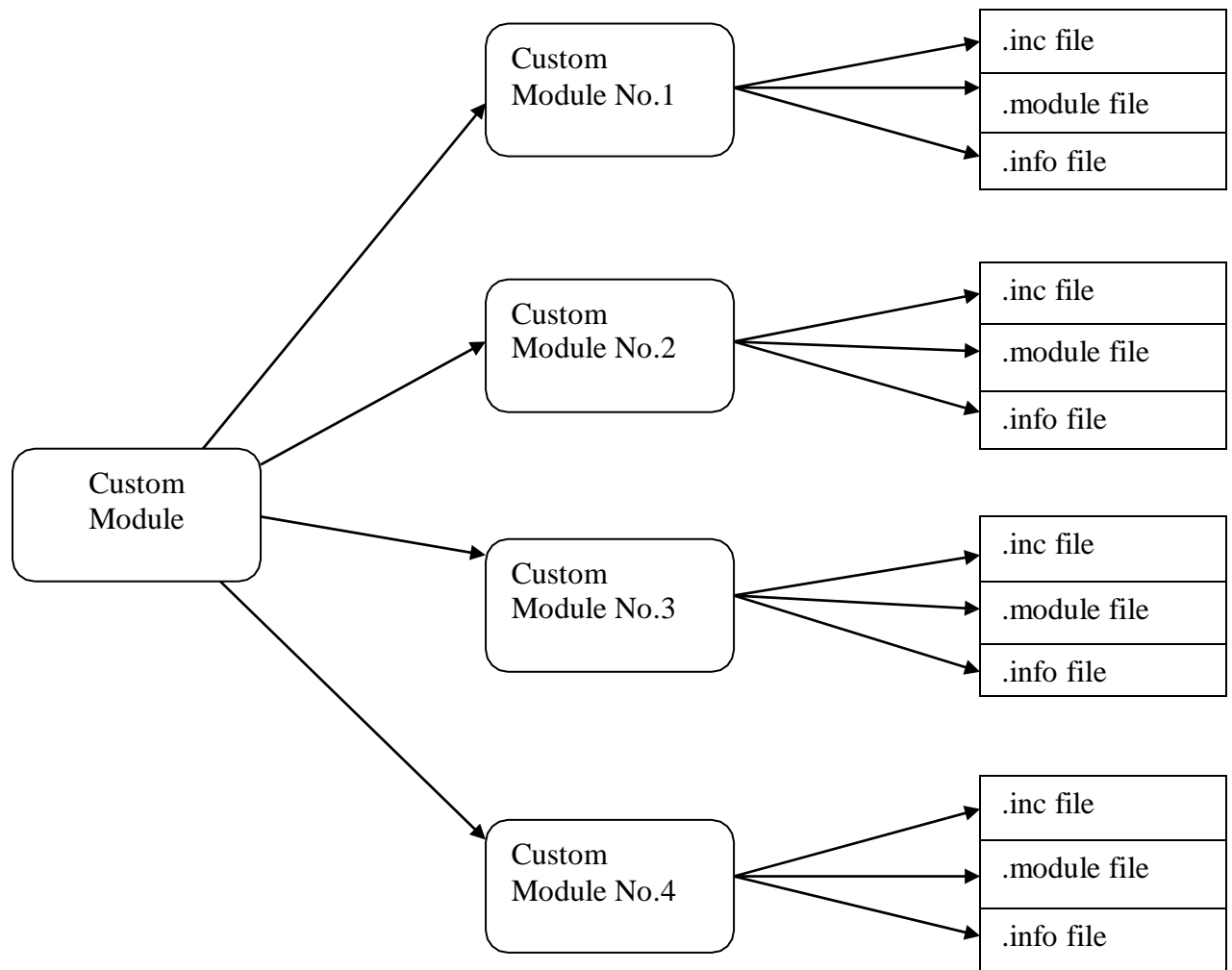


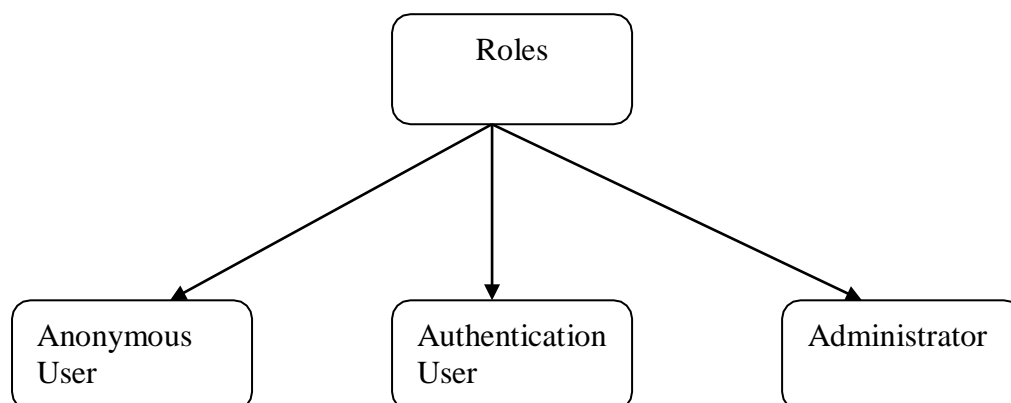
Figure 1 Implementation Environment

## 4.2 Module Specification

### Custom Module:



### Different Roles in Drupal:



### 4.3 Coding Standard:

```
<?php
include('class.pdf2text.php');
function file_upload_callback($form , &$form_state) {
    $form['upload_item'] = array(
        '#type' => 'file',
        '#title' => 'Upload File'
    );

    if(isset($_SESSION['uploaded_link'])) {
        $form['uploaded_link'] = array(
            '#type' => 'markup',
            '#markup' => '<a href="' . $_SESSION['uploaded_link'] . '">' .
$_SESSION['uploaded_link'] . '</a>'
        );
    }

    $form['upload_submit'] = array(
        '#type' => 'submit',
        '#value' => 'Upload File',
        '#submit' => array('upload_file_submit_callback')
    );

    return $form;
}

function upload_file_submit_callback($form, &$form_state){

    $validators = array(
        'file_validate_size' => array("2097152"),
        'file_validate_extensions' => array("pdf")
    );

    $location1 = 'public://';
    $uploadCheck = file_save_upload('upload_item', $validators, $location1);

    if($uploadCheck) {
        $link = file_create_url($uploadCheck->uri);
        $_SESSION['uploaded_link'] = $link;

        $filepath = drupal_realpath($uploadCheck->uri);
        $a = new PDF2Text();
        $a->setFilename($filepath);
        $a->decodePDF();
        $ans = $a->output();

        $out = "";
        $offset = 0;
        while ( $offset = strpos($ans,"Basic Salary=",$offset) )
```

```
{
    $end = strpos($ans,'',$offset);
    if ( $end )
        $out .= substr($ans,$offset+14,$end-$offset+2);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$income=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"Conveyance Allowance=",$offset) )
{
    $end = strpos($ans,'',$offset);
    if ( $end )
        $out .= substr($ans,$offset+22,$end-$offset-2);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$extra_income = (int)$out;
$total_sal=$income+$extra_income;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"Professional Tax=",$offset) )
{
    $end = strpos($ans,'',$offset);
    if ( $end )
        $out .= substr($ans,$offset+18,$end-$offset-6);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$professional_tax =(int)$out;
$medicclaim = 0;
$jmp;$jump;

//$total_sal=0;
$gross_salary;
$full_total;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"Insurance Premium=",$offset) )
{
    $end = strpos($ans,'',$offset);
    if ( $end )
        $out .= substr($ans,$offset+18,$end-$offset-3);
```

```
else
    $out .= substr($ans,$offset);

    $offset++;
}
$insurance_premium=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"Child tution fees=", $offset) )
{
    $end = strpos($ans,' ', $offset);
    if ( $end )
        $out .= substr($ans,$offset+18,$end-$offset);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$child_tution_fees=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"House Loan Interest=", $offset) )
{
    $end = strpos($ans,' ', $offset);
    if ( $end )
        $out .= substr($ans,$offset+20,$end-$offset+1);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$house_loan_interest=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"Educational Loan Interest=", $offset) )
{
    $end = strpos($ans,' ', $offset);
    if ( $end )
        $out .= substr($ans,$offset+27,$end-$offset-5);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$educational_loan_interest=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"Mediclaime=", $offset) )
{
    $end = strpos($ans,' ', $offset);
```

```
if ( $end )
    $out .= substr($ans,$offset+10,$end-$offset-9);
else
    $out .= substr($ans,$offset);

    $offset++;
}
$medicclaim=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"PF=", $offset) )
{
    $end = strpos($ans,' ', $offset);
    if ( $end )
        $out .= substr($ans,$offset+3,$end-$offset-1);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$provident_fund=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"Mutual Fund=", $offset) )
{
    $end = strpos($ans,' ', $offset);
    if ( $end )
        $out .= substr($ans,$offset+10,$end-$offset+5);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$mutual_fund=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"Insurance Prepaid=", $offset) )
{
    $end = strpos($ans,' ', $offset);
    if ( $end )
        $out .= substr($ans,$offset+19,$end-$offset-3);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$insurance_pre_paid=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"Public Provident Fund=", $offset) )
```

```
{
    $end = strpos($ans,'',$offset);
    if ( $end )
        $out .= substr($ans,$offset+22,$end-$offset+1);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$public_provident_fund=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"National saving certificate=",$offset) )
{
    $end = strpos($ans,'',$offset);
    if ( $end )
        $out .= substr($ans,$offset+29,$end-$offset-1);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$national_saving_certificate=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"United Link Insurance=",$offset) )
{
    $end = strpos($ans,'',$offset);
    if ( $end )
        $out .= substr($ans,$offset+23,$end-$offset);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$united_link_insurance=(int)$out;
$out = "";
$offset = 0;
while ( $offset = strpos($ans,"Housing Loan=",$offset) )
{
    $end = strpos($ans,'',$offset);
    if ( $end )
        $out .= substr($ans,$offset+14,$end-$offset+1);
    else
        $out .= substr($ans,$offset);

    $offset++;
}
$sd=40000;
$tax_income;
```

```

        $cess=0;
        $final_tax=0; $final_tax1=0;
        $total_salr=0;
        $housing_loan=(int)$out;
        $out = "";
        $offset = 0;
        while ( $offset = strpos($ans,"NPS=", $offset) )
        {
            $end = strpos($ans,' ', $offset);
            if ( $end )
                $out .= substr($ans,$offset+20,$end-$offset+1);
            else
                $out .= substr($ans,$offset);

            $offset++;
        }
        $nps=(int)$out;
        $tmp_1;
        $tmp_2;
        $tmp_3;
        $tmp_4;
        $nps;
        $sd=40000;
        $ans1;
        if($total_sal<=250000)
    {
        $tax_income=0;
        $final_tax= 0;

    }
    else if($total_sal>250000&&$total_sal<=500000)
    {

        if($total_sal<=350000)
        {
            $total_sal=$total_sal-2500;
            /*tmp_1=total_sal-250000;
            ans1=tmp_1*(0.05f);
            ans1=ans-2500;
            if(ans1<=0){
                final_tax=0;
            }
            else {
                cess=ans1*(0.04f);
                tax_income=ans1+cess;
                final_tax=ans1+cess+stcg_tax+ltcg_tax;
            }*/
        }
        $tmp_1 = $total_sal - 250000;
        $ans = $tmp_1*(0.05);
    }

```



```

    $cess = $ans1*(0.04);
    $tax_income=$ans1+$cess;
    $final_tax=$ans1+$cess;
}
else if($total_sal>500000&&$total_sal<=1000000)
{
    $tmp_1=$total_sal-250000;
    $tmp_2=$tmp_1-250000;
    $tmp_3=$tmp_2*(0.20);
    $tmp_1=$tmp_1-$tmp_2;
    $tmp_2=$tmp_1*(0.05);
    $ans1=$tmp_3+$tmp_2;
    $cess=$ans1*(0.04);
    $tax_income=$ans1+$cess;
    $final_tax=$ans1+$cess;
}
else if($total_sal>1000000)
{
    $tmp_1=$total_sal-250000;
    $tmp_2=$tmp_1-250000;
    $tmp_3=$tmp_2-500000;
    $tmp_4=$tmp_3;
    $tmp_3=$tmp_3*(0.3);
    $tmp_2=$tmp_2-$tmp_4;
    $tmp_2=$tmp_2*(0.2);
    $ans=$tmp_2+$tmp_3+12500;
    $cess=$ans1*(0.04);
    $tax_income=$ans1+$cess;
    $final_tax=$ans1+$cess;
}
    if($professional_tax<=2400)
    {
        $total_salr = $total_sal - $professional_tax ;
    }
else
    {
        $total_salr=$total_sal-2400;
    }
    if($house_loan_interest<=50000)//slab for the house loan interest is changed from 200000 to 50000
(SECTION 80D)
    {
        $total_salr=$total_salr-$house_loan_interest;
    }
else
    {
        $total_salr=$total_salr-50000;
    }
    $total_salr=$total_salr-$educational_loan_interest;
    if($mediclaim<=50000)//slab for the mediclaim is changed from 25000 to 50000 (SECTION 80D)
    {

```

```
$total_salr=$total_salr-$medicclaim;
}
else
{
    $total_salr=$total_salr-50000;
}

$temp_final_ded;

$temp_final_ded=$provident_fund+$insurance_premium+$child_tuition_fees+$housing_loan+$insurance_pre_
paid+$public_provident_fund+$national_saving_certificate+$united_link_insurance+$mutual_fund;

if($temp_final_ded<=150000)
{
    $total_salr=$total_salr-$temp_final_ded-$sd;
}
else
{
    $total_salr=$total_salr-150000-$sd;
}

if($nps<=150000)//slab changed to 150000 from 50000
{
    $total_salr=$total_salr-$nps;
}
else
{
    $total_salr=$total_salr-150000;
}
drupal_set_message("Total Salary:.". $total_salr);
drupal_set_message("Tax Payable:.". $final_tax);
}
?>
```

## 4.4 Snapshots:

### User Details:

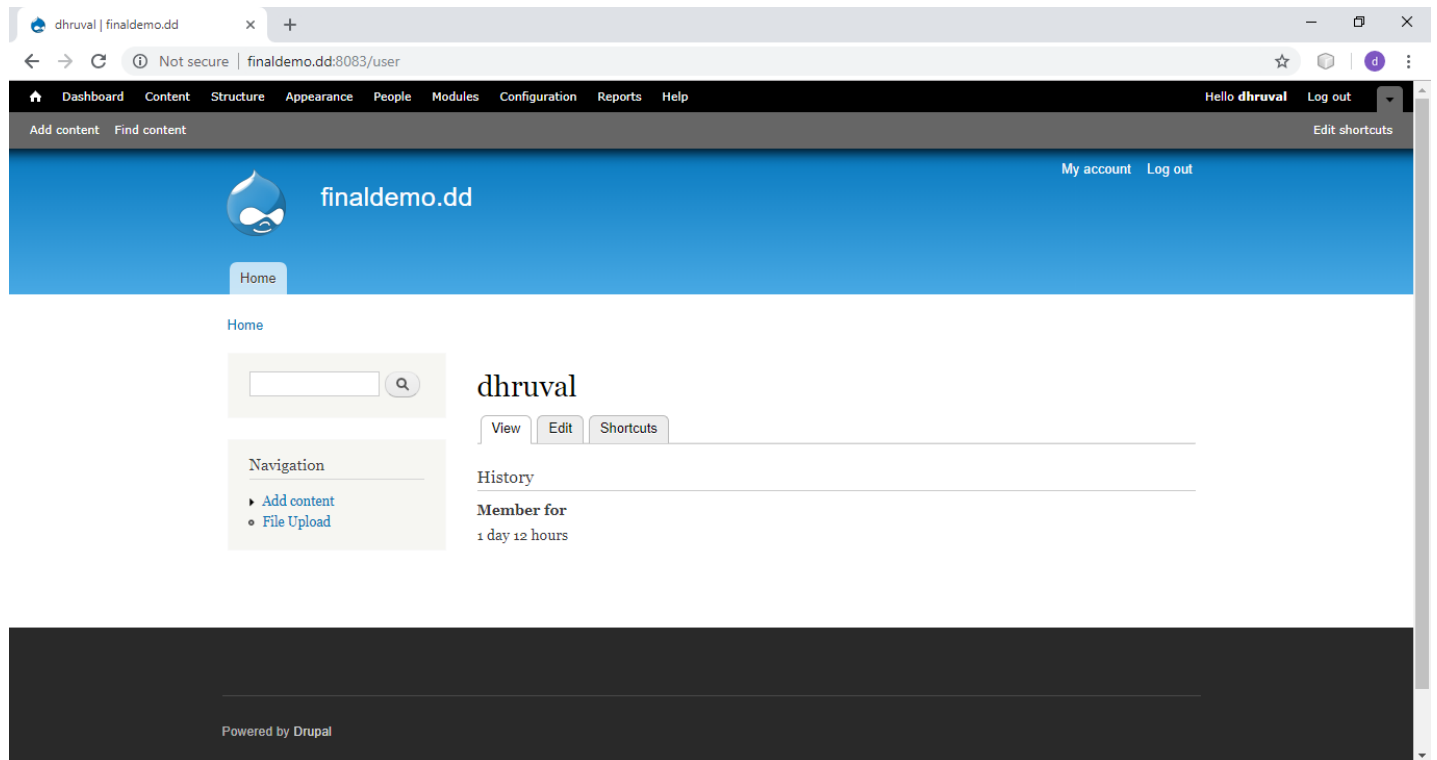


Figure 2 User Details

### Home Page:

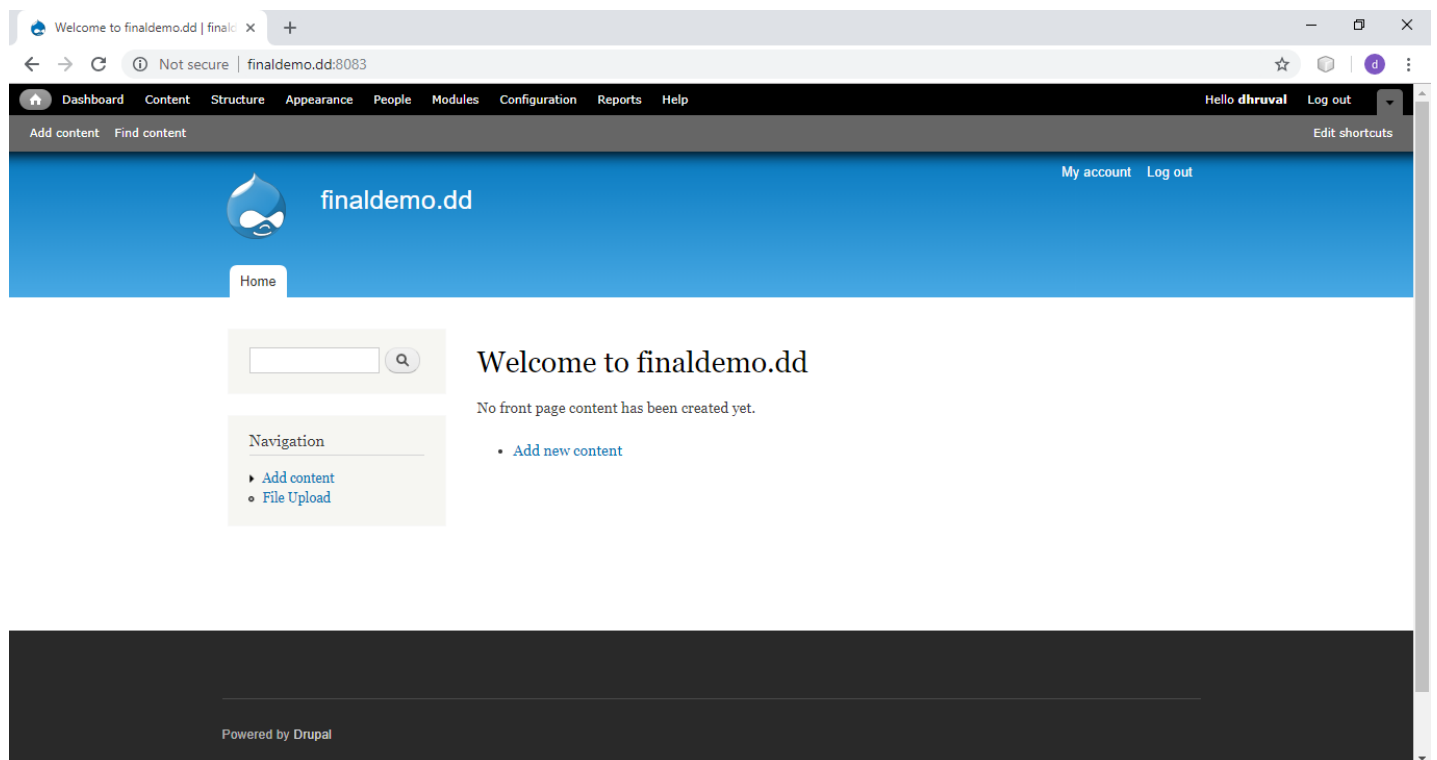


Figure 3 Home Page

## File Upload Module:

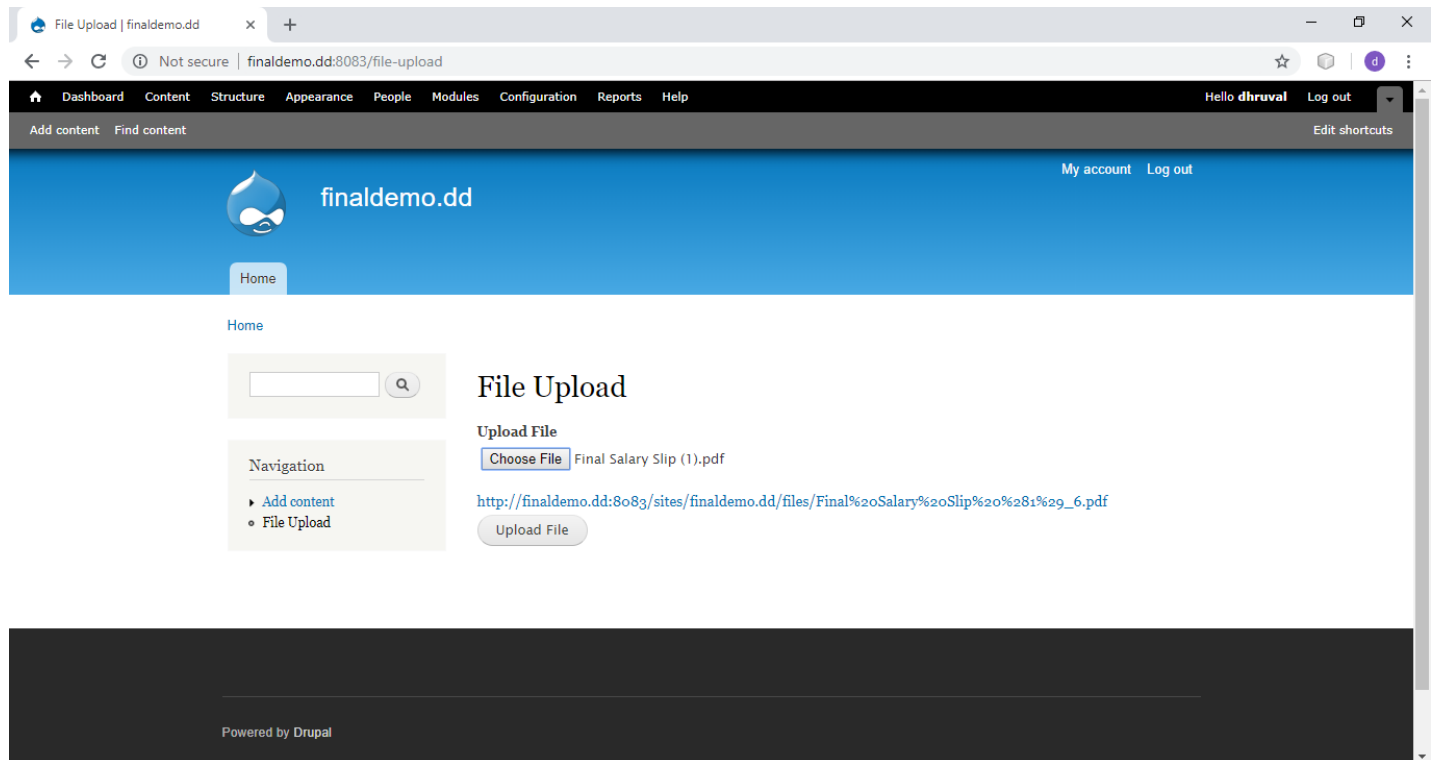


Figure 4 File Upload Module

## Final Output:

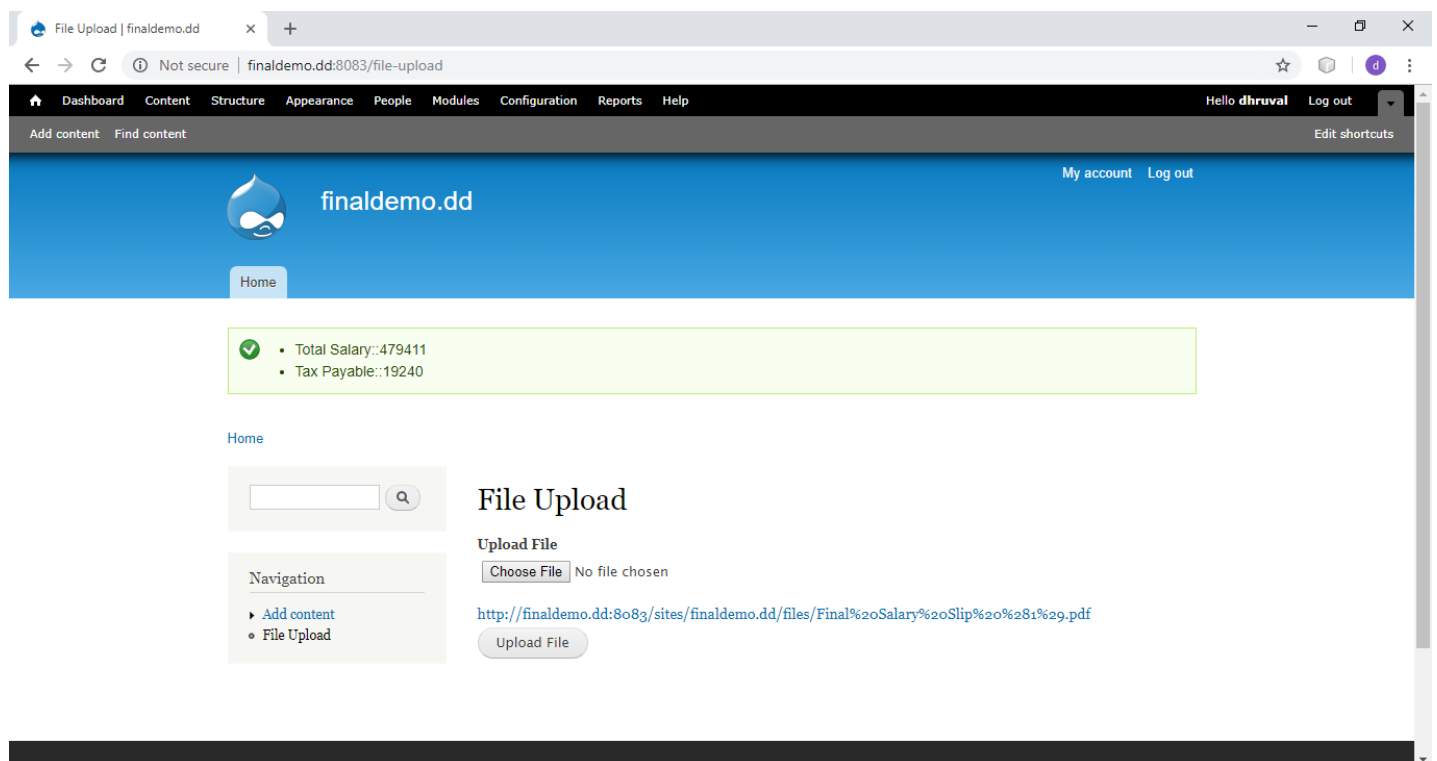


Figure 5 Output

## CHAPTER 5

### CONSTRAINTS

#### 5.1 Constraints:

1. It can work with only specific pdf format salary slip but it cannot work 16-H form or any kind of word file, xml file or excel file.
2. It cannot work with all kind of pdf format but it can work with only specific formatted pdf.
3. May be website works slowly sometimes due to network problem and some mistake in system. Due to that it take more time to perform.
4. Compare different year salary slip facility is not available for user.

## **CHAPTER 6**

### **CONCLUSION**

Income tax return system provides the user a facility to calculate total payable income tax by salary slip in pdf format. User can upload salary slip in pdf format and get output of annual salary and amount payable tax without any kind of income tax agent and we cannot need to pay extra for agent. This website is very useful for calculation of income tax.

## 6.1 References:

<https://www.drupal.org/forum/support/post-installation/2010-03-10/view-pdf>

[https://www.w3schools.com/php/func\\_string\\_strpos.asp](https://www.w3schools.com/php/func_string_strpos.asp)

[https://www.w3schools.com/php/func\\_string\\_substr.asp](https://www.w3schools.com/php/func_string_substr.asp)

[https://www.w3schools.com/php/func\\_string\\_implode.asp](https://www.w3schools.com/php/func_string_implode.asp)

<https://github.com/smalot/pdfparser/tree/master/src/Smalot/PdfParser>

<https://stackoverflow.com/questions/8104998/how-to-call-function-of-one-php-file-from-another-php-file-and-pass-parameters-t>