



# FREE & OPEN SOURCE PROGRAMMING (FOSP)

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# EVALUATION

Evaluation Criteria	Details
Internal Evaluation	<ul style="list-style-type: none"><li>✓ Theory (20)</li><li>✓ Practical (50)<ul style="list-style-type: none"><li>✓ Lab Performance (30)</li><li>✓ Project (20)</li></ul></li></ul>
Final Evaluation	<ul style="list-style-type: none"><li>✓ Final Exam (80)</li></ul>

## Internal Marks (20)

- First Assessment (5)
- Assignment (4)
- Class Test (1)
- Attendance (2)
- Final Assessment (8)

## Practical Marks (30)

- Lab Test (5)
- Lab Attendance (4)
- Lab Report (9)
- Viva (2)
- Final Lab Exam (10)

## Project (20)

- Proposal (8)
  - Hard-copy Proposal (2)
  - Mock-up Design (2)
  - Database Design (2)
  - Team-work (2)
- Final Submission (12)
  - Hard-copy Report (3)
  - Softcopy Submission (3)
    - Presentation Slide (1)
    - Screenshots (1)
    - Final Report (1)
  - Source Code (3)
  - Team-work (3)

# GITHUB.COM/KHWOPA/FOSP

## SIGNUP & WATCH

https://github.com/join?source=header-home

Join GitHub

The best way to design, build, and ship software.

Step 1: Create personal account

Create your personal account

Username

This will be your username. You can add the name of your organization later.

Email address

We'll occasionally send updates about your account to this inbox. We'll never share your email address with anyone.

Password

Make sure it's at least 7 characters, including a number, and a lowercase letter.

Verify account

https://github.com/khwopa/FOSP

Unwatch 2 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0

Free and Open Source Programming (FOSP)

3 commits 1 branch

Branch: master New pull request

ErSKS Update README.md

FOSP\_Syllabus.pdf

README.md

README.md

FOSP [Learning Material]

Free and Open Source Programming (FOSP)

Contact Email: fosp.khwopa@gmail.com or comp

version 1.0

FOSP Lecturer Slides

0 releases

Create new

Notifications

- Not watching  
Be notified only when participating or @mentioned.
- Releases only  
Be notified of new releases, and when participating or @mentioned.
- ✓ Watching  
Be notified of all conversations.
- Ignoring  
Never be notified.

2 hours ago

# FOSP [LEARNING MATERIALS]

Lecturer Slide

Lecturer Notes

Labsheets

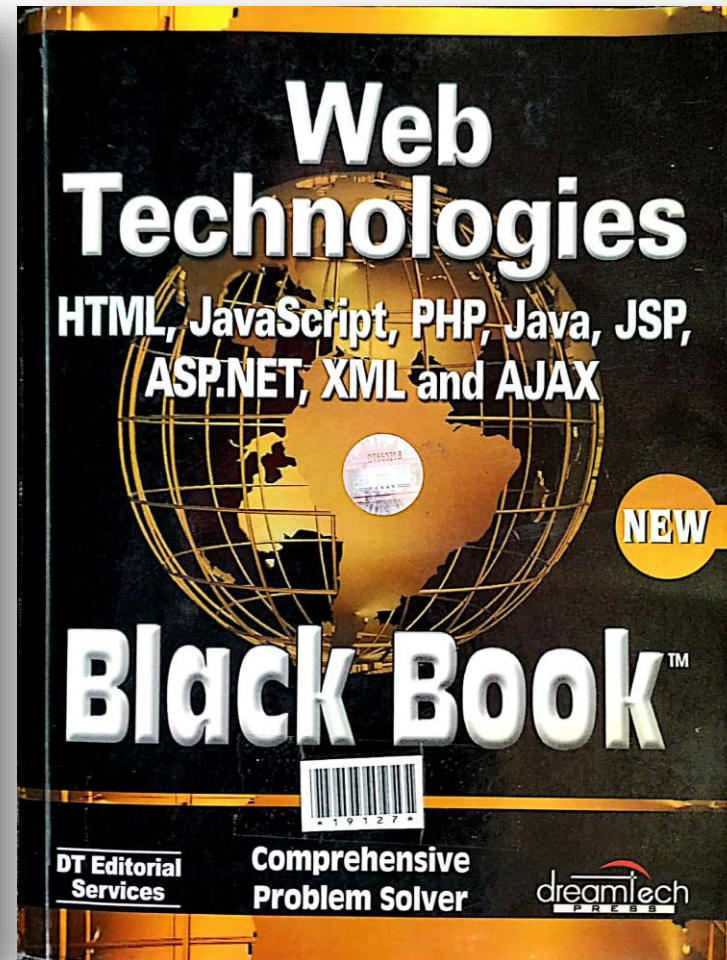
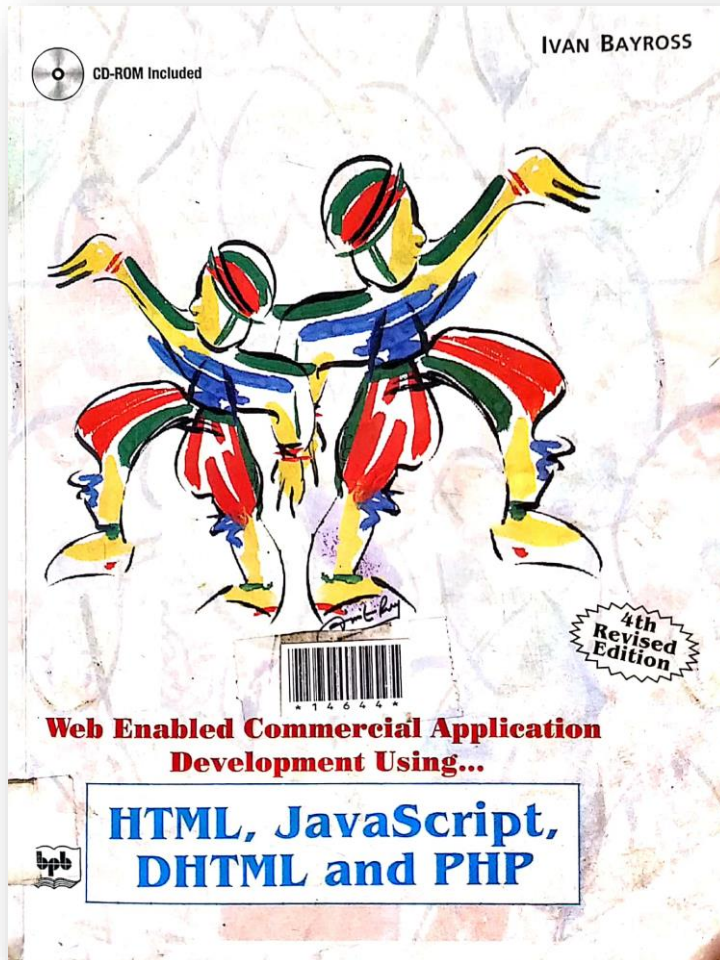
Assignments

Project Details

Syllabus

Miscellaneous

# FOSP BOOKS



# COURSE CONTENT

1. Free and Open Source Software (FOSS) an Overview
2. Classification of Free and Open Source Software
3. Licensing
4. Web Basics
5. Web Development with HTML & DHTML
6. Introduction to JavaScript
7. Open Source Programming with PHP
8. Databases Connectivity in PHP
9. Session and Cookies



1

- 1.1 Introduction
- 1.2 The FOSS Philosophy
- 1.3 History and Evolution of FOSS
- 1.4 Design Logic, Source Code, Binary Code
- 1.5 Examples of Open Source Software Products
- 1.6 Emerging Applications of FOSS Philosophy in Various Sectors.



# CLASSIFICATION OF FREE AND OPEN SOURCE SOFTWARE (5 HRS.)

## 2.1 Free Software

## 2.1 Open Source Software

## 2.3 Proprietary Software

## 2.4 Other Existing Software

## 2.5 Open Standards

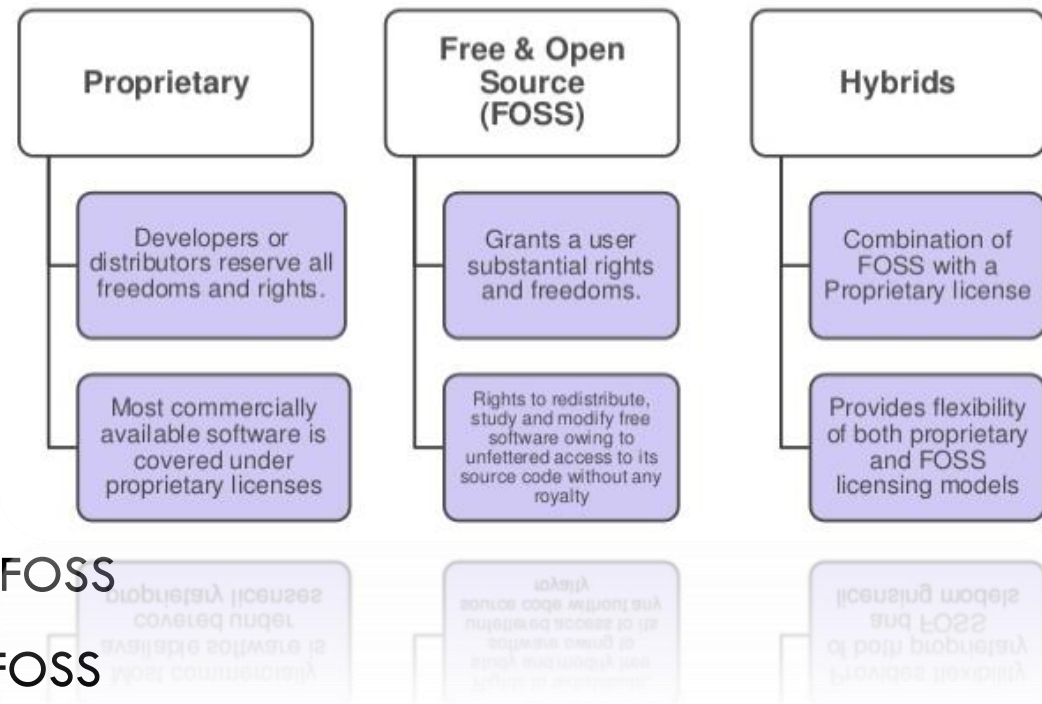
## 2.6 Open Content

## 2.7 Benefits & Shortcoming of FOSS

## 2.8 Strengths & Weakness of FOSS

## 2.9 Comparison of FOSS and Proprietary Software

Broad Classification of Software Licenses





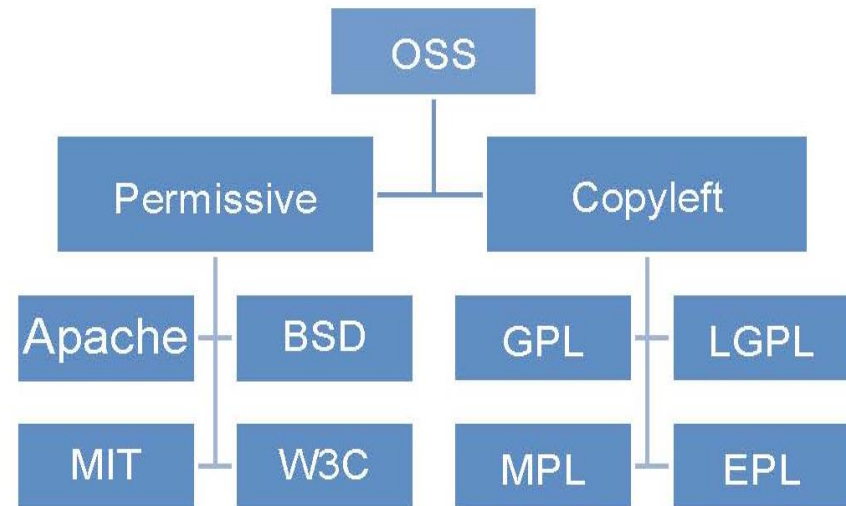
# LICENSING (4 HRS.)

## 3.1 Types of Licensing

Two types of OSS Licenses

## 3.2 Commercial License versus Open Source License

## 3.3 Open Source Software Licensing, Types of OSS Licenses, OSS Licensing Strategies



# WEB BASICS (3 HRS.)

4.1 Web Browsers

4.2 Web Servers

4.3 Types of Web Pages  
& its Processing in WWW

4.4 HTTP, HTTPS

4.5 HTTP Transaction

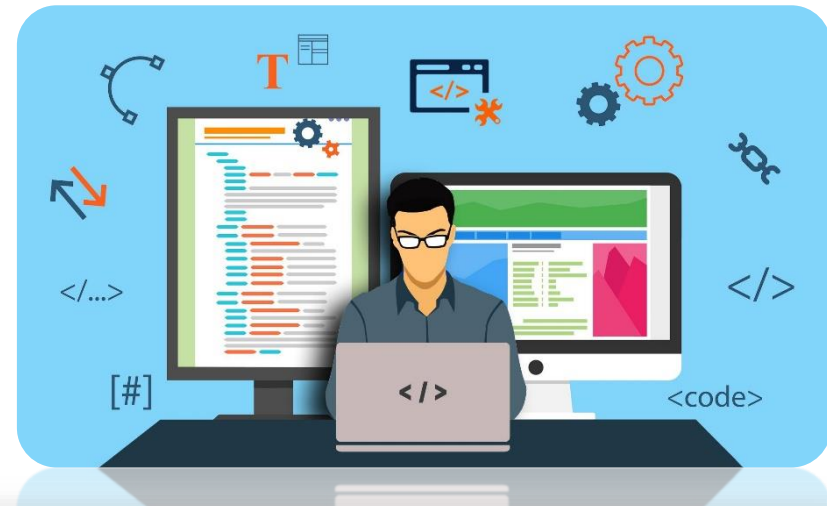
4.6 FTP & its Types



# WEB DEVELOPMENT WITH HTML & DHTML (6 HRS.)

## 5.1 Introduction to HTML

## 5.2 HTML Assistants, Editors, Convertors, Images and Multimedia, Linking Documents, Tables, Frames, Image Maps, Forms, CSS



# INTRODUCTION TO JAVASCRIPT

## (4 HRS.)

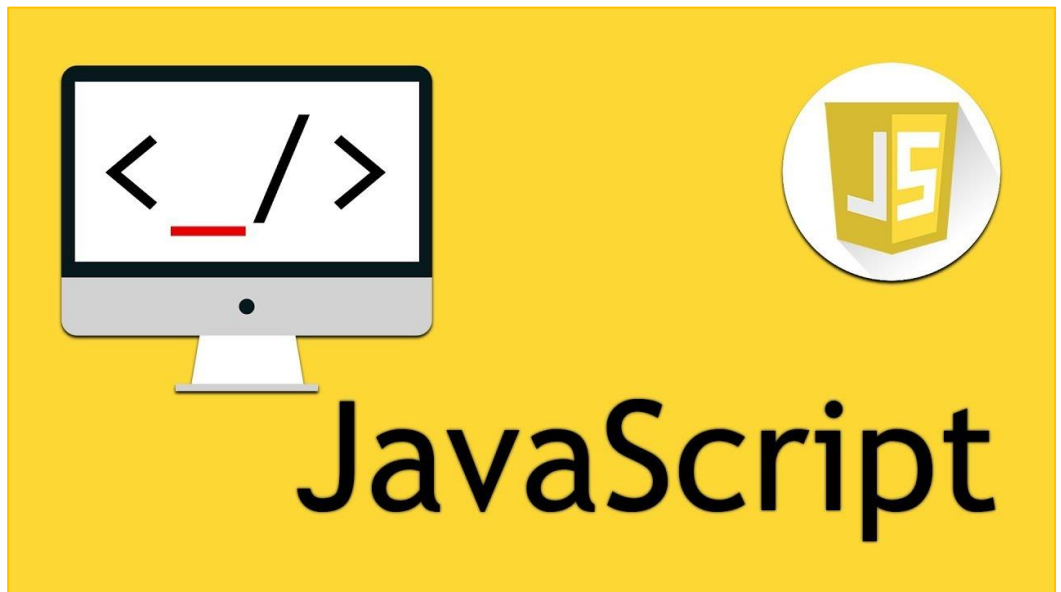
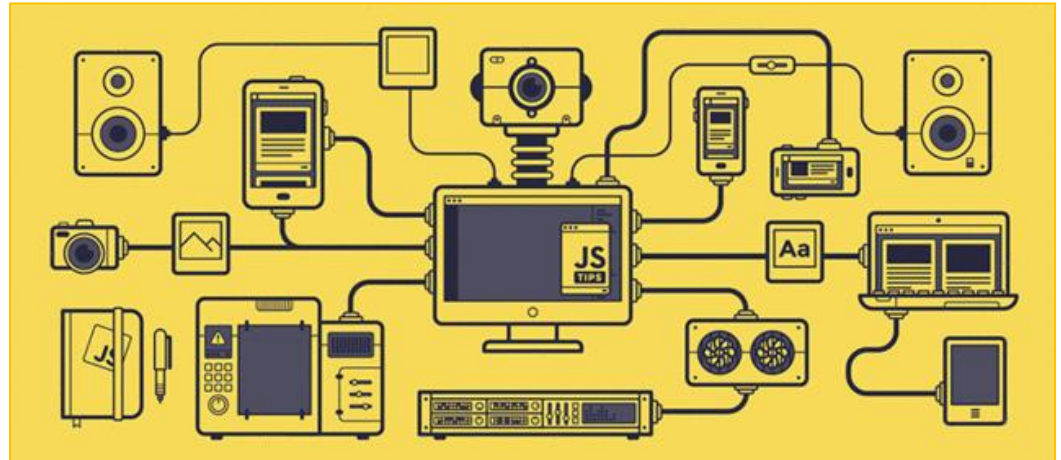
6.1 Basic Introduction

6.2 Functions

6.3 Error Handling

6.4 Dialog Box

6.5 Form Validation



# OPEN SOURCE PROGRAMMING WITH PHP (10 HRS.)

## 7.1 Introduction

- a. Syntax
- b. Operators
- c. Variables
- d. Constants
- e. Control Structures
- f. Language Constructs and Functions

## 7.2 Arrays

- a. Enumerated Arrays
- b. Associative Arrays
- c. Array Iteration
- d. Multi-Dimensional Arrays
- e. Array Functions

## 7.3 Functions

- a. Syntax
- b. Arguments
- c. Variables
- d. References
- e. Returns
- f. Variable Scope

## 7.4 File Handling

- a. Files
- b. Reading
- c. Writing
- d. File System Functions

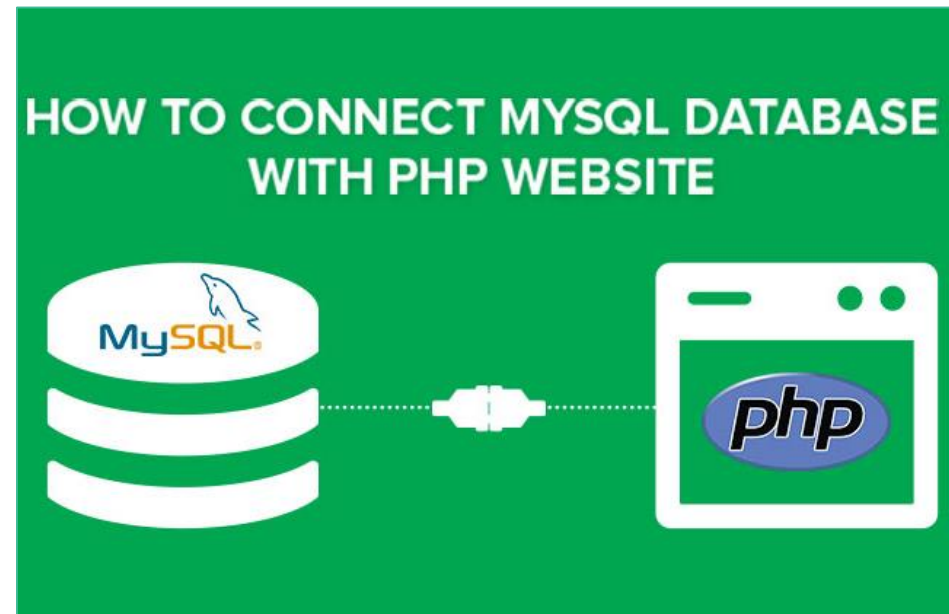
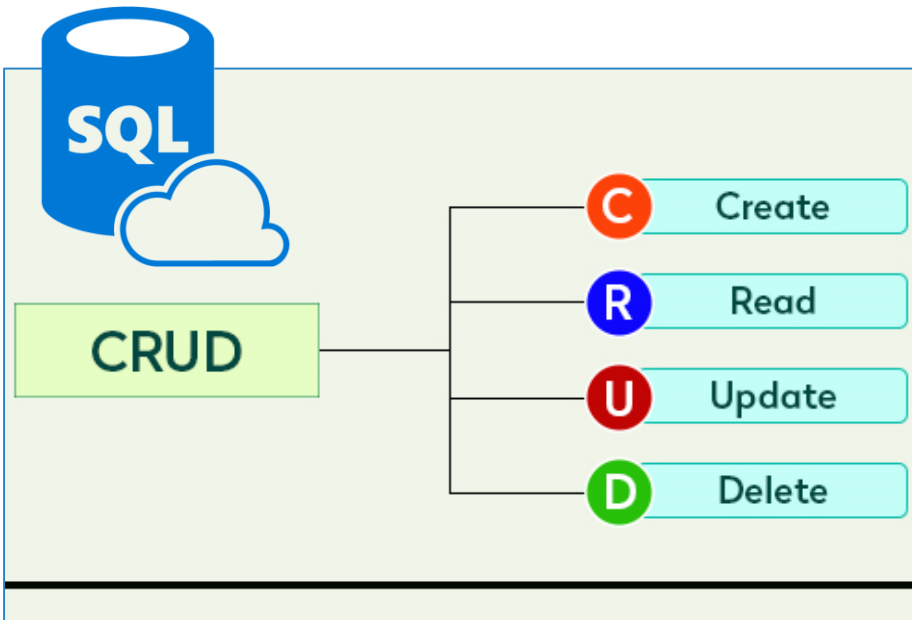


# DATABASES CONNECTIVITY IN PHP (4 HRS.)

8.1 SQL

8.2 Basic SQL Queries (CRUD)

8.3 Database Connectivity





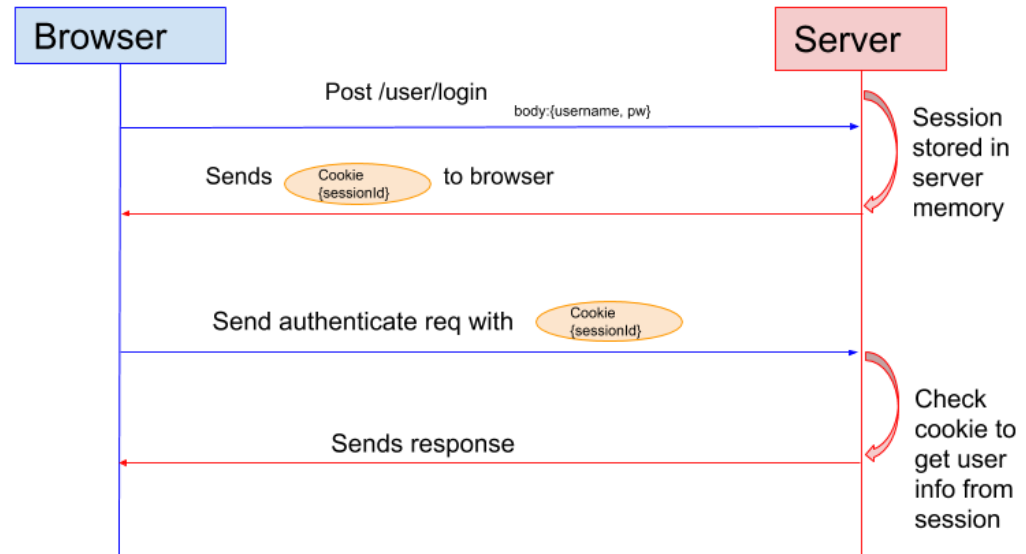
# SESSION AND COOKIES (4 HRS.)

## 9.1 Introduction to session

## 9.2 Create session

## 8.3 Destroy session

## 9.4 Cookies



# PRACTICAL

There shall be lab exercises to cover all the theoretical concept of the Free & Open Source Programming.

# REFERENCES

1. HTML, DHTML, JavaScript & PHP, Ivan Bayross (New Edition)
2. Free and Open Source Software A general Introduction by Kenneth Wong and Phet Sayo, Published by IOSN APDIP.
3. The Cathedral and the Bazaar; Musings on Linux and Open Source by an Accidental Revolutionary by Eric S. Raymond.
4. Beginning of PHP, WROX , PHI Publishing House
5. Professional PHP Programming, Jesus M. Castagnetto, Harish Rawat,

# TASK

## Project Work

1. Visualize a Problem
2. Gather & Analyze Requirements
3. Design System to Solve that Problem
4. ...

## Project Submission

1. Need to Do a Project
2. Project Submission – **Individual**
3. Proposal – **Within a Week**
4. Final Submission – **Before Final Assessment**

# PROJECT LIST

- |   |   |   |
|---|---|---|
| 1. Inventory Control System                 | 12. Art Gallery Management System                   | Management System   |
| 2. Student Record Keeping System            | 13. Hotel Management System                         | 22. Automated Faculty Evaluation System                       |
| 3. Online Retail                            | 14. Wholesale Management System                     | 23. Online Health Shopping Portal With Product Recommendation |
| 4. Railway System                           | 15. News Portal                                     | 24. Employee Management System                                |
| 5. Hospital Management System               | 16. ATM Management System                           | 25. College Forums with Alumni Based on Content Filtering     |
| 6. Library Management System                | 17. Driving School Management System                | 26. Secure E Learning System                                  |
| 7. Payroll Management System                | 18. Teachers Automatic Time-Table Generation System | 27. Monitoring Suspicious Discussions On Online Forums        |
| 8. Document Clustering and Searching System | 19. Bikes & Scooters Rental System                  | 28. Job Portal  |
| 9. Healthcare Organization                  | 20. Online College Fee Payment System               | 29. Project Voting System                                     |
| 10. Restaurant Management                   | 21. Canteen Food Ordering and                       | 30. Student Attendance System                                 |
| 11. Blood Donation System                   |   |   |

# PROJECT LIST (2)

- |  |  |   |
|--|--|---|
| 1. Secure Online Auction System                  | 14. Online Paying Guest Accommodation                                      | 23. Student Information Chatbot Project                       |
| 2. Online Election System Project                | 15. Advanced Mobile Store  | 24. Efficient Doctor Patient                                  |
| 3. Online Loan Application & Verification System | 16. Online Diagnostic Lab Reporting System                                 | 25. Sentiment Analysis For Product Rating                     |
| 4. Matrimonial Portal                            | 17. Real Estate Management System  | 26. E Commerce Product Rating Based On Customer Review Mining |
| 5. Online Herbs Shopping Project                 | 18. Filtering political sentiment in social media from textual information | 27. Opinion Mining For Restaurant Reviews                     |
| 6. Online Bakery Shop System                     | 19. Evaluation of Academic Performance of Students with Fuzzy Logic        | 28. Smart Health Prediction Using Data Mining                 |
| 7. Daily Expense Tracker System                  | 20. Document Sentiment Analysis Using Opinion Mining                       | 29. Sentiment Based Movie Rating System                       |
| 8. Online Furniture Shop                         | 21. Crime Rate Prediction Using K Means                                    | 30. Online Book Recommendation Using Collaborative Filtering  |
| 9. Car Comparison System Project                 |  |   |
| 10. Salon Management System                      |  |   |
| 11. Cricket Club Management Project              |  |   |
| 12. Campus Recruitment System                    |  |   |
| 13. Khwopa Discussion Forum                      |  |   |



Q/A?

Thank You!

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