

UNIVERSITY OF MADRAS  
MASTER OF COMPUTER APPLICATIONS (MCA) DEGREE PROGRAMME  
SYLLABUS WITH EFFECT FROM 2023-2024

Title of the Paper	<b>Architecture and Frameworks - Lab</b>		
Elective – II Practical - II	I Year & I Semester	Credit:3	435E1E

### Course Objectives

To understand and implement the basic concepts of Software architecture and its functions.

To acquire programming skills to develop Implement various technologies and services associated with network protocols along with the challenges of data transfer.

Implement the importance and functioning of Routing Protocols over communication service.

To acquire skills to connect two routers and any two switches.

To comprehend related to SSH protocols and accessing the remote device.

Note: Use the solid servers and client specification for implementation

<https://github.com/solid/specification/>.

Implement the following using Linux / Windows environments

1. Find the WebID profile document and display the necessary attributes
2. Set and access the primary authentications with account recovery mechanisms
3. Set and access the secondary authentications with account recovery mechanisms
4. Design authorization and web access control
5. Find the content representation
6. Reading resources from HTTP REST API and WebSockets API
7. Writing resources from HTTP REST API and WebSockets API
8. Data notification using Social Web App protocol
9. Managing subscriptions and friends list using Social Web App protocol
10. Managing list of followers and following list using Social Web App protocol

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**Course Outcomes**

On the successful completion of the course, students will be able to

Course Outcome	Description	Knowledge Level
CO1	Comprehend the programming skills of Software architecture tools and packages.	K1-K6
CO2	Understand and implement the user profiles and authentication with recovery mechanism.	K1-K6
CO3	Comprehend and evaluate the access control and content representation use of FTP server.	K1-K6
CO4	Understand and implement reading and writing resources for various applications.	K1-K6
CO5	Identify and examine the notifications, friends, and follower list of social application protocols.	K1-K6

K1- Remember, K2- Understand, K3- Apply, K4- Analyze, K5-Evaluate, K6- Create

**Mapping with Programme Outcomes:**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	M	L	M	S	-	-	M	-
CO2	S	M	S	S	S	M	-	-	M	-
CO3	S	M	S	M	S	M	-	-	M	S
CO4	S	M	L	S	M	L	-	-	M	-
CO5	M	S	M	L	S	L	-	-	M	S

S- Strong; M-Medium; L-Low