

RASPBERRY PI MEDIA CENTER



This project outlines the creation of a home media server using the Raspberry Pi Zero 2 W

TABLE OF CONTENTS

CHAPTER	TOPICS	PAGE NO.
	LIST OF FIGURES	i
	ABSTRACT	ii
1	INTRODUCTION	1
	1.1 OVERVIEW OF THE PROJECT	2
	1.2 AIM OF THE PROJECT	2
	1.3 SCOPE OF THE PROJECT	3
2	LITERATURE SURVEY	4
3	RESEARCH GAP	5
	3.1 EXISTING SYSTEM	5
	3.2 PROBLEM IDENTIFICATION	6
	3.3 PROPOSED SYSTEM	7
4	SYSTEM SPECIFICATION	9
	4.1 HARDWARE REQUIREMENTS	9
	4.2 SOFTWARE REQUIREMENTS	9
	4.3 TABLE OF CORE SUBJECTS REALATED TO PROJECT	11
5	SYSTEM DESIGN	12
	5.1 ARCHITECTURE DIAGRAM	12
	5.2 FLOW CHART DIAGRAM	13
	5.3 USE CASE DIAGRAM	14
	5.4 CLASS DIAGRAM	15

	5.5 SEQUENCE DIAGRAM	16
6	IMPLEMENTATION	18
	6.1 MODULES	19
7	RESULT AND DISCUSSION	20
	7.1 RESULT	20
	7.2 FUTURE WORK	24
8	CONCLUSION	25
	REFERENCES	26
	APPENDIX	28

LIST OF FIGURES

S.NO	FIGURE NO.	NAME OF THE FIGURE	PAGE NO.
1	5.1	ARCHITECTURE DIAGRAM	13
2	5.2	FLOW CHART DIAGRAM	14
3	5.3	USE CASE DIAGRAM	16
4	5.4	CLASS DIAGRAM	17
5	5.5	SEQUENCE DIAGRAM	18

ABSTRACT

This project outlines the creation of a home media server using the Raspberry Pi Zero 2 W, a compact and cost-effective single-board computer. The aim is to provide a guide for enthusiasts interested in setting up their own media server for streaming and accessing multimedia content within their home network. The guide covers the essential steps required to establish the media server, including hardware setup, software installation, and configuration. Key components such as the Raspberry Pi Zero 2 W, MicroSD card, power supply, and external storage are identified as necessary materials. Instructions are provided for initial setup tasks such as flashing the MicroSD card with the Raspberry Pi OS Lite image, configuring network connectivity, and enabling SSH access. The process of updating and upgrading the system software is also outlined to ensure the installation of the latest packages. The project discusses various media server software options, including Plex, Emby, and Jellyfin, and provides guidelines for installation and configuration. Emphasis is placed on mounting external storage devices and configuring the media server software to access multimedia content stored on the external drive. Once the media server is set up and running, users can access their media library from any device connected to the home network, allowing for convenient streaming and playback of videos, music, and other multimedia content. Overall, this project serves as a practical guide for enthusiasts looking to leverage the Raspberry Pi Zero 2 w to create a versatile and affordable home media server solution.

KEYWORDS: Raspberry Pi Zero 2 w, Cloud, Media Server, SSH, Multimedia