

# ATTENDANCE MANAGEMENT SYSTEM USING LINUX

A Project Report

*Submitted by*

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*In partial fulfilment for the award of the degree of*

Master

*in*

Computer Science



**Centurion  
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*Shaping Lives...  
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**DEPARTMENT OF**

**SCHOOL OF ENGINEERING AND TECHNOLOGY, BHUBANESWAR CAMPUS**

**CENTURION UNIVERSITY OF TECHNOLOGY AND**

**MANAGEMENT, ODISHA**

**DEPARTMENT OF MASTER IN COMPUTER APPLICATION  
SCHOOL OF ENGINEERING AND TECHNOLOGY  
BHUBANESWAR CAMPUS**

**BONAFIDE CERTIFICATE**

Certified that this project report “**ATTENDANCE MANAGEMENT SYSTEM USING LINUX**” is the bonafide work of “**BIDYASAGAR BEHERA**” who carried out the project work under my supervision. This is to further certify to the best of my knowledge, that this project has not been carried out earlier in this institute and the university.

**SIGNATURE**

**SCHOOL OF ENGINEERING AND TECHNOLOGY**

*Certified that the above mentioned project has been duly carried out as per the norms of the college and statutes of the university.*

**SIGNATURE**

## **DECLARATION**

I hereby declare that the project entitled “**ATTENDANCE MANAGEMENT SYSTEM USING LINUX**” submitted for the “IT Infrastructure and Management” of 1st semester MCA in Computer Science and Engineering is my original work and the project has not formed the basis for the award MCA Degree or any other similar titles in any other University / Institute.

**Name of the Student: BIDYASAGAR BEHERA**

**Signature of the Student:** \_\_\_\_\_

**Registration No.: 230720100128**

**Place : Bhubaneswar**

**Date:**

## **ACKNOWLEDGEMENTS**

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I would be failing in my duty if I do not acknowledge the cooperation rendered during various stages of image interpretation by Adyasha Swain.

I am highly grateful to Adyasha Swain who evinced keen interest and invaluable support in the progress and successful completion of my project work.

I am indebted Adyasha Swain for their constant encouragement, cooperation, and help. Words of gratitude are not enough to describe the accommodation and fortitude which they have shown throughout my endeavor.

**Name of the Student: BIDYASAGAR BEHERA**

**Signature of the Student:**

**Registration No.: 230720100128**

**Place : Bhubaneswar**

**Date:**

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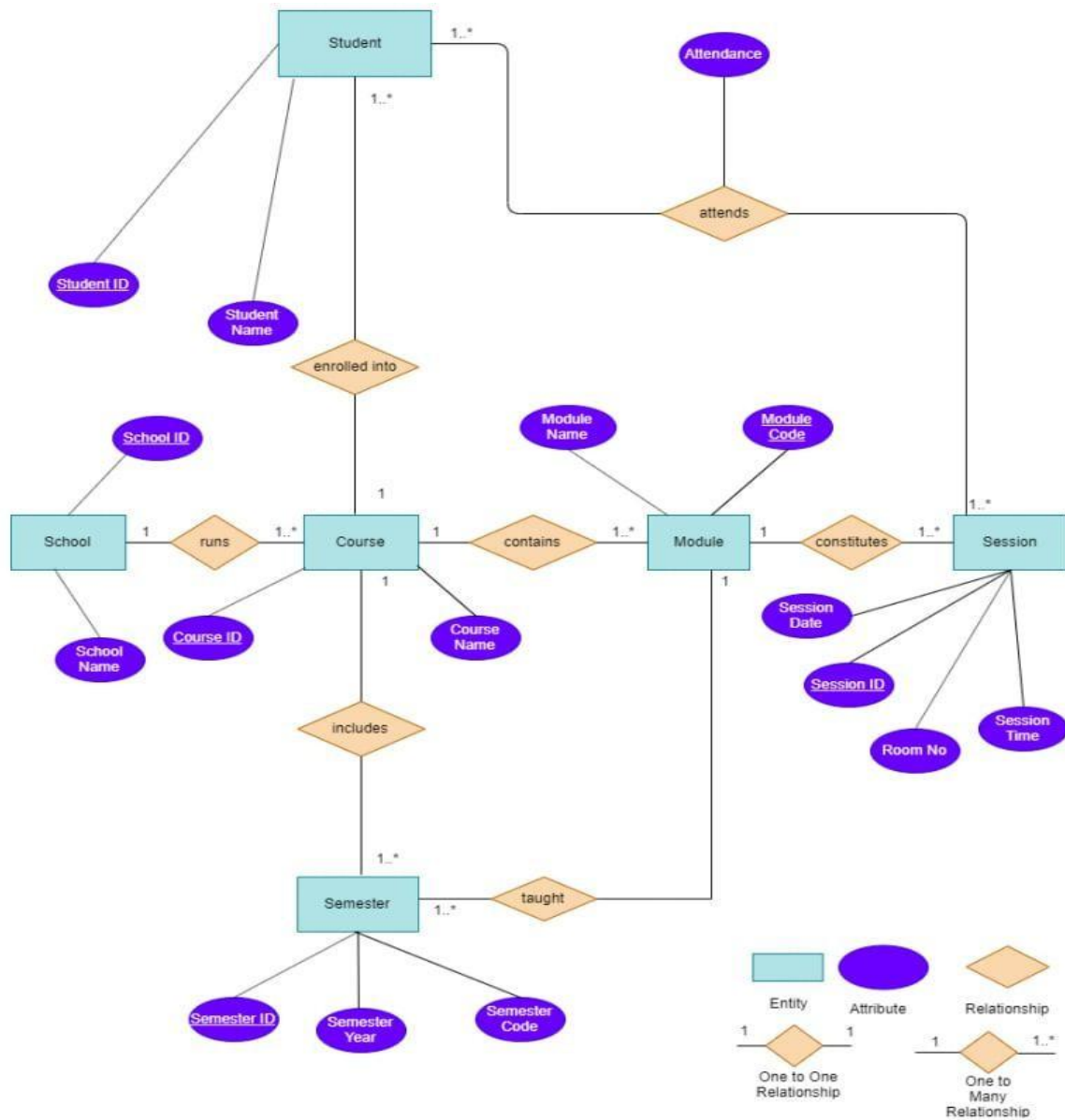
## INTRODUCTION

### What is Attendance Management System ?

- For Example some colleges or University still prefer to mark attendance manually & maintaining a attendance register. While there are many colleges and Universities to make us attendance software or biometrics.
- The Process of managing and Monitoring the presence of a student is called Attendance Management System.
- **There are three types of system users.**
  - I. Administrator**
  - II. Reporter**
  - III. Instructor**
- Any User who wants to use Attendance Management System must get user name and password which admin grants it.
- Attendance System consist from three parts , first part is Admin Session , who can login to system and edit on all Database tables.
- The Second part is instructor session , who login to system for marking Attendance .
- The Third part is Reporter session , that also to system to show Attendance and Report all these tasks.
- The Purpose of developing Attendance Management System is to make it Secured digital and authorized.

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## BLUEPRINT OF OUR PROJECT:





## COMMANDS USED IN OUR PROJECT :-

- ❖ **Vi** :- This command is used to create and edit a shell script file.
- ❖ **Echo** :- This command is used to display line of text or string which are passed as argument on the command line.
- ❖ **Read** :- This command is used for read the input from the user or from a file.
- ❖ **grep** :- this command is used for check the text line by line and print line matching or search for a particular string and key word from a file.
- ❖ **Echo-e** :- This command is used for allowing the interpretation of backslash escape sequences in the provide text.
- ❖ **IF** :- This Command is used for evaluated to decide which statement will be executed by the processor.
- ❖ **Fi** :- This command is used to stop and exit the if else command in shell script.
- ❖ **Chmod +x** :- chmod is stands for change mode. command is used to change the permissions of files and directories. The x option specifically sets the execute permission on a file, allowing it to be run as a program.
- ❖ **./<file name>** :- this command is used to shows the content of the file as a output.



## PROCESS 1 :-

### Step 1:

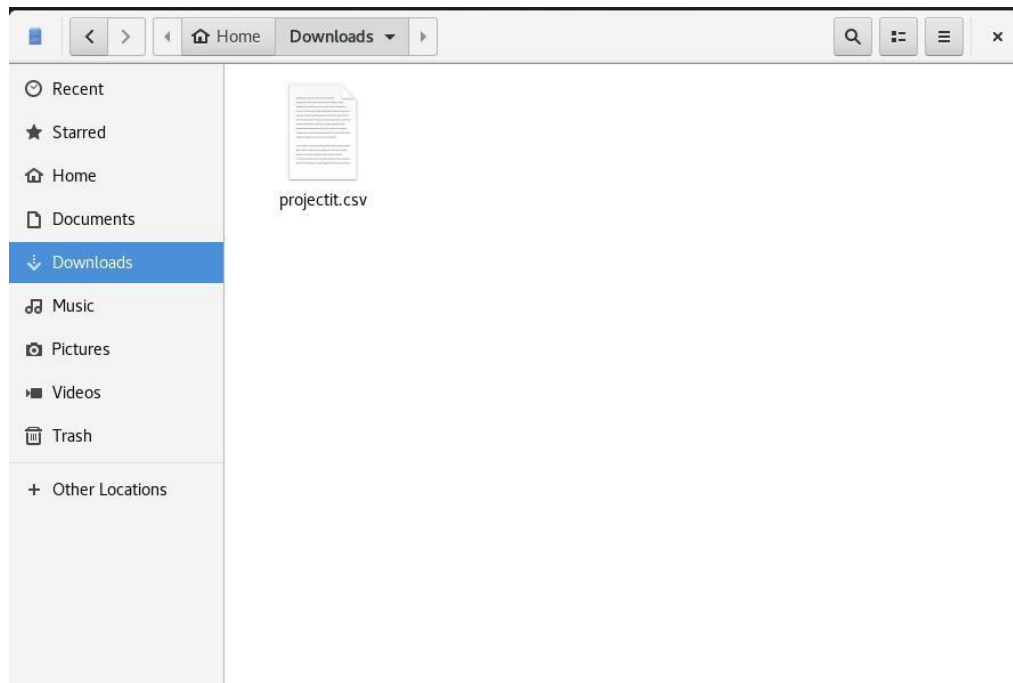
- In the First step we input 20 different Students details with their different Registration number, Branch, Semester, Date and Attendance in an excelsheet .
- Then in the next step convert that excelsheet into a csv file by saving that excelsheet in comma delimited format.
- Then in further step we then copy the csv file and paste it in the linux file.

RegNo	Name	Branch	Semestar	Date	Attendance
121	AKASH KUMAR BISWAL	MCA	First	15-12-2023	P
122	BADAL KUMAR PATRA	MCA	First	15-12-2023	P
123	PARTHA SARATHI RAUTARAY	MCA	First	15-12-2023	P
124	JYOTIBALA GOUDA	MCA	First	15-12-2023	A
125	PRATAP CHANDRA KULDI	MCA	First	15-12-2023	P
126	DEBABRATA PATTANAIK	MCA	First	15-12-2023	A
127	MADHUSMITA ROUT	MCA	First	15-12-2023	P
128	BIDYASAGAR BEHERA	MCA	First	15-12-2023	P
129	ASHISH ROUT	MCA	First	15-12-2023	A
130	PULAK PUROHIT	MCA	First	15-12-2023	P
131	IMRAN AHEMAD KHAN	MCA	First	15-12-2023	P
132	MANISHA BALIARSINGH	MCA	First	15-12-2023	A
133	SUBRAT NAYAK	MCA	First	15-12-2023	P
134	SMRUTI RANJAN MALLICK	MCA	First	15-12-2023	A
135	GAYATRI SASMAL	MCA	First	15-12-2023	P
136	LIPSA RANI NAYAK	MCA	First	15-12-2023	A
137	ABHIJEET BEHERA	MCA	First	15-12-2023	P
138	PUJARANEE PATRA	MCA	First	15-12-2023	A
139	SWATI SMARANIKA CHOUDHURY	MCA	First	15-12-2023	P
140	SAMBHUNATH BEHERA	MCA	First	15-12-2023	A

## PROCESS 2:-

### Step 2:

- In this step we copy the csv file and paste the file in the Linux operating system.
- Here the csv file is **projectit.csv** . we paste the csv file in the Downloads folder in the Linux Operating System.



### PROCESS 3:

#### Step 3:

- In this step we open a terminal in the Downloads file where our csv file is present.
- We write vi command to create a shell scripting file.
- Vi command is used to create and edit a file.
- we name the file as **project.sh** . you can name the project by any name.
- Here .sh is the extension for scripting language.

```
bidyasagar@localhost:~/Downloads
File Edit View Search Terminal Help
[bidyasagar@localhost Downloads]$ vi project.sh
```

## PROCESS 4 :-

### Step 4

- Then we write the codes in shell script file.(shell script is basically a text file that contains a sequence of codes) then we need to type I to insert code in the scripting file.
- Here we have given some attributes like RegNo, Name, Date.
- Then we have used “echo” command is all attributes to display lines of text that is passed as argument .then we have used “read” command in all attributes to read the text that we have given in echo. By using “grep” command which stands as(global search for the regular expression) The grep filter searches a file for a particular pattern of characters, and displays all lines that contain that pattern. The pattern that is searched in the file is referred to as the regular expression.
- After this,we have used “echo -e” command i.e used to choose among those conditions or sequence in the given text.
- Then we have used if to check the condition in looping form.
- Then we have put “fi” to stop the “if” statement .
- Then to go to the command line terminal we have to press the esc button and type :wq to save and quit/exit shell script file.Then it will take us to the previous terminal.

```
#!/bin/bash
searchByRegNo() {
    echo "Enter The RegNo:"
    read RegNo
    grep $RegNo projectit.csv
}
searchByName() {
    echo "Enter The Name:"
    read Name
    grep $Name projectit.csv
}
searchByDate() {
    echo "Enter The Date:"
    read Date
    grep $Date projectit.csv
}

echo -e "Please Enter Your Choice\n1.Search By RegNo\n2.Search By Name\n3.Search By Date."
read choice

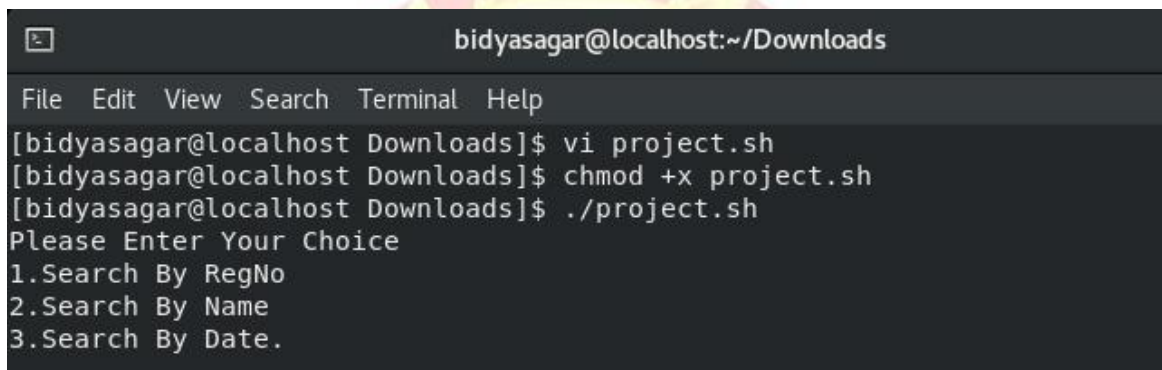
if [ $choice -eq 1 ]
then
    searchByRegNo
fi
if [ $choice -eq 2 ]
then
    searchByName
fi
if [ $choice -eq 3 ]
then
    searchByDate
fi

~
~
~
~
~
:wq
```

## PROCESS 5:-

### Step-5 (use of chmod +x )

- Now to execute the shell script file we write chmod +x command on the terminal.
- Chmod stands for change mode. Here the x option specifically sets the execute permission on a file, allowing it to be run as a program.
- this command sets the execute permission for the owner of the file and allows users to run the script by typing in the terminal as below ./project.sh



```
bidyasagar@localhost:~/Downloads
File Edit View Search Terminal Help
[bidyasagar@localhost Downloads]$ vi project.sh
[bidyasagar@localhost Downloads]$ chmod +x project.sh
[bidyasagar@localhost Downloads]$ ./project.sh
Please Enter Your Choice
1.Search By RegNo
2.Search By Name
3.Search By Date.
```

[ This output shows the content of the file project.sh in the terminal.]

### Final output :-

- After execution of the program by using chmod command .
- The content of the file project.sh shows as an output.
- Now search the RegNo you want to find using the instruction of the student.
- Here we use command like ./project.sh , after that it will show us the instruction.
- Like if we choose 1 we have to enter RegNo to find the student.
- If we choose 3 we have to enter Date to find the how many student present in that date.

```

[bidyasagar@localhost Downloads]$ chmod +x project.sh
[bidyasagar@localhost Downloads]$ ./project.sh
Please Enter Your Choice
1.Search By RegNo
2.Search By Name
3.Search By Date.
1
Enter The RegNo:
128
128,BIDYASAGAR BEHERA,MCA,First,15-12-2023,P
[bidyasagar@localhost Downloads]$ chmod +x project.sh
[bidyasagar@localhost Downloads]$ ./project.sh
Please Enter Your Choice
1.Search By RegNo
2.Search By Name
3.Search By Date.
3
Enter The Date:
15-12-2023
121,AKASH KUMAR BISWAL,MCA,First,15-12-2023,P
122,BADAL KUMAR PATRA,MCA,First,15-12-2023,P
123,PARTHA SARATHI RAUTARAY,MCA,First,15-12-2023,P
124,JYOTIBALA GOUDA,MCA,First,15-12-2023,A
125,PRATAP CHANDRA KULDI,MCA,First,15-12-2023,P
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127,MADHUSMITA ROUT,MCA,First,15-12-2023,P
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138,PUJARANEE PATRA,MCA,First,15-12-2023,A
139,SWATI SMARANIKI CHOUDHURY,MCA,First,15-12-2023,P
140,SAMBHUNATH BEHERA,MCA,First,15-12-2023,A
[bidyasagar@localhost Downloads]$ █

```

## References

For the reference you can go through this drive link :

[https://drive.google.com/drive/folders/18fi9-NsiND3zP0SzWpH3zMPBxLxJvPkN?usp=drive\\_link](https://drive.google.com/drive/folders/18fi9-NsiND3zP0SzWpH3zMPBxLxJvPkN?usp=drive_link)

## ASSESSMENT

### Internal:

SL NO	RUBRICS	FULL MARK	MARKS OBTAINED	REMARKS
1	Understanding the relevance, scope and dimension of the project	10		
2	Methodology	10		
3	Quality of Analysis and Results	10		
4	Interpretations and Conclusions	10		
5	Report	10		
	<b>Total</b>	<b>50</b>		

Date:

Signature of the Faculty



## COURSE OUTCOME (COs) ATTAINMENT

### ➤ Expected Course Outcomes (COs):

(Refer to COs Statement in the Syllabus)

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### ➤ Course Outcome Attained:

How would we rate our learning of the subject based on the specified COs?

☐

1

☐

2

☐

3

☐

4

☐

5

☐

6

☐

7

☐

8

☐

9

☐

10

LOW

HIGH

### ➤ Learning Gap (if any):

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### ➤ Books / Manuals Referred:

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Date:

Signature of the Student

### ➤ Suggestions / Recommendations:

(By the Course Faculty)

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Date:

Signature of the Faculty