CLOUD COMPUTING LAB MANUAL

Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution, Aided by Govt. of Karnataka)
Affiliated to Visveswaraya Technological University
Near Jnana Bharathi Campus, Mallathalli, Bengaluru - 560056

Laboratory Certificate

This is to certify that Smt./Sri .....

has satisfactorily completed the course of Experiments in Practical.....

.....prescribed by the.....

University.....

in the Laboratory of this College in the year.

Date ..... *Signature of the Teacher Incharge of the Batch*

Head of the Department

Name of the Candidate.....

..... USN .....

Examination Centre.....

Date of Practical Examination.....

INDEX

Name of the student : **USN :** **Class** : 6th SEM ISE **Year** : 3

Expt No.	Date	Title of the Experiment	Page No	Date of Submission	Remarks
1	23-04-2024	Design Google Form and Google Sheets		30-04-2024	
2	30-04-2024	Salesforce : Product Information		07-05-2024	
3	30-04-2024	Salesforce : Master Child Relationship		07-05-2024	
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5	21-05-2024	Codeanywhere and Database program		28-05-2024	
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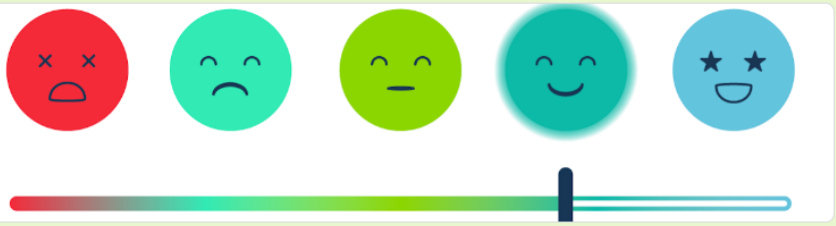
8	11-06-2024	Codeanywhere: file handling		18-06-2024	
9	11-06-2024	Unix Scripting Demonstration		18-06-2024	
10	20-06-2024	Docker Program		28-06-2024	

Techno Fest Feedback

Send

Questions Responses 1 Settings



Techno Fest Feedback

Enter Your Experience Of Techno Fest

Email *

Short answer text

Name *

Short answer text

USN *

Short answer text

How was the Techno Fest Experience ?

Multiple choice

- Not Good
- Satisfactory
- Good
- Excellent
- Add option or add "Other"

Required

Why you attended the event ? *

Long answer text

Have you attended this event before ? *

Short answer text

What was your biggest takeaway ? *

EXPERIMENT 1 : DESIGN GOOGLE FORM AND GOOGLE SHEETS

AIM:
Working of Google Form to develop event feedback form.

REQUIREMENTS:
Internet Connection, Google Account

THEORY:
Google Form is a survey administration software included as a part of the free, web based Google Docs Editor Suite offered by Google. They are used to create online forms and
Surveys with multiple question types. One can analyse results in real time and from any device. The collected information can be automatically entered into a spreadsheet.

Features include, but are not limited to menu search, shuffle for questions for randomized order, limiting responses to once per person, shorter URLs, custom themes, automatically generating answers, validation and upload file option for users, answering questions that require them to Share content or files from their computer or Drive.

PROCEDURE:
1. On your web browser login to your gmail-id.

2. On the top right corner, click on the Google Apps icon (:) and select Forms App.
3. To create a new form, either click on 'Blank' or browse through the templates under 'Start a new form'
4. Rename the form by clicking on the top left corner Space named as 'Untitled form'
5. The title and description of the form can be provided under the 'Questions tab'.
6. To add the survey questions, under the 'Questions' tab, do the following:
- Click 'Untitled Question' and type the question to be asked. You can add questions by clicking on (Add Question) icon)
- To change the questions type, click the down arrow() option on the right side and you can choose one among the following types:
[Short answer, Paragraph, Multiple Choice, Checkboxes, Dropdown, file upload, linear scale, Multiple Choice grid, Checkbox grid, Date, Time]
- Add response options (for example, Option 1 = A, Option 2 = B and so on) based on the selected question type.
- To delete a question, click on delete button ( ).
- Click on 'Required' option if the response is mandatory.

7. To edit questions do the following:
- Drag to reorder the questions.
- Click More (three dots) to add a description and response validation.

8. Response validation puts a condition on the type of response to be written.
- To add an image to a question, click on 'Add image' icon
- To add a video to a question, click on 'Add video' icon.
- To add a section, click on 'Add Section' icon on the right side.

9. To send form to other users, click on the 'send' button in the top right corner. You can send your response via Email, link, Embed HTML options.

10. To know the responses, click on the 'Responses' tab in the form. The Responses can be viewed in different formats:
- 'Summary' option gives the graphical representation of the responses to each question, it can be in the form of a bar graph, pie chart etc
- 'Question' option gives all the responses to each question. We can select a particular question in the drop down or we can slide through each question
- 'Individual' option is a slide through option where response to all the questions by each user can be obtained.
-The responses can be downloaded as a '.csv' file.
-Print all responses and Delete all responses options are available.

11. The 'Settings' tab provides ways to handle 'Questions', 'Responses', presentation with form defaults and Question defaults, used for creating the form.

RESULT :

Designing and Demonstration of the usage of Google form is demonstrated and a google form for event feedback is developed.

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Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BANGALORE - 560056

(An Autonomous Institution Affiliated to VTU,Belgaum)

Semester : 03 Subject: DATA STRUCTURES WITH C Year 2020-2021

2018-2022 batch

			Test1					Test 2					Test 3					Assignment							
			CO1	CO1	CO2	CO2	CO2	CO3	CO3	CO3	CO3	CO4	CO3	CO3	CO3	CO3	CO4								
SNO	USN	SNAME	1a	1b	2a	2b	2c	1a	1b	2a	2b	2c	1a	1b	2a	2b	2c		CO1&2	CO3&4		CO1	CO2	CO3	co4
																						5.392857143	4.730769231	10.4766	4.81641
1	1DA17IS001	ABHIJEET METRE	3	1	0	0	0	5	3	2		5						4	2	2		6	2	12	7
2	1DA17IS037	SRINIVASA MURTHY S M						3		2		3	3	2	2		2	3	1	2		1	1	14	7
3	1DA18IS001	ADITHYA S	1	0	0	0		3	3	1		3	4	2	4	3	3	3	1	2		2	1	22	8
4	1DA18IS002	ADITYA DIXIT	5	4	2	1		3	4	3								4	2	2		11	5	12	2
5	1DA18IS003	ADITYA AMRIT	3	0	2	0		3	3	3		1						4	2	2		5	4	11	3
6	1DA18IS004	AKULA GOKUL	4	2		2		5	3	3		4						4	2	2		8	4	13	6
7	1DA18IS005	AMAN KUMAR	2	1	2	4		5	4	3		4						4	2	2		5	8	14	6
8	1DA18IS006	AMOGH D R	4		3	3		5	3		4							3	1	2		5	7	14	2
9	1DA18IS007	ANISH B KAKATHKAR	5	4	5	4		5	3	3	5							4	2	2		11	11	18	2
10	1DA18IS008	ANSHU	4	1	2	2		3	3		2	4						5	2	3		7	6	11	7
11	1DA18IS009	ANUJ S M	5			3		5	4	2		4						5	2	3		7	5	14	7
12	1DA18IS010	ATHMIYA C SHEKHAR	4	0	0	4		5	2	3		5						4	2	2		6	6	12	7
13	1DA18IS011	ATUL TRIPATHI	4	2	4	1		5	4	5		4						5	2	3		8	7	17	7
14	1DA18IS012	BHAGYA SHRI T	4	0		0		5	3	3		5						5	2	3		6	2	14	8
15	1DA18IS014	BRUNDA K	5	0	1	3		5	4	4		5						4	2	2		7	6	15	7
16	1DA18IS015	C RAVI KUMAR	4	3	1	4		3	3	3		5						5	2	3		9	7	12	8
17	1DA18IS016	CHANDAN P	3	0			0	5	3			4						5	2	3		5	2	11	7
18	1DA18IS017	DEEKSHA R SAPATE	4	0	4	5	4	5	4	3		5						4	2	2		6	15	14	7
19	1DA18IS018	DEEPANSHU SHARMA	4	3	1	5		4	3	3		5						4	2	2		9	8	12	7
20	1DA18IS019	DEVPRIYA JAISWAL	5	2	5	3	4	5	4	3	5							4	2	2		9	14	19	2
21	1DA18IS020	DHEERAJ B N	4	3	4	3							4	4	4		4	5	2	3		9	9	15	7
22	1DA18IS021	GNANESH K S	4	3	1	1		5	3	2		4						4	2	2		9	4	12	6
23	1DA18IS022	HARSHA K J	5	4	0	3		4	1		2	2						5	2	3		11	5	10	5
24	1DA18IS023	HARSHIT GUPTA	4	0	2			5		2		4						4	2	2		6	4	9	6
25	1DA18IS024	HARSHJEET KUMAR	4	1	0	2		3	2	3		4						4	2	2		7	4	10	6
26	1DA18IS025	HEMANTH U	5	3	5	4	4	5	4	2	4	5						4	2	2		10	15	17	7
27	1DA18IS026	HIMANI SAHOO	4	0	0		4	5	5	2	4	4						4	2	2		6	6	18	6
28	1DA18IS027	JAYASHREE G	4	1	4	5		4	4	5	5							5	2	3		7	11	21	3
29	1DA18IS028	KAVYA N M	3	1	0	1		5	3	2	1	4						5	2	3		6	3	14	7
30	1DA18IS029	KOWSHIK C	4	2	0	0	1	4	3	3		4						4	2	2		8	3	12	6
31	1DA18IS030	THOHID M	4	1	0			5	3	2		5						4	2	2			2	12	7
32	1DA18IS031	MAHENDRA R	4	2	3	4		5	3	4		5						4	2	2		8	9	14	7
33	1DA18IS032	MD ZIAUL ARFEEN	5	4	4	0	5	5	3	2		4						5	2	3		11	11	13	7
34	1DA18IS033	NAYANA K N	4	0		0	2	5	3	2		5						5	2	3		6	4	13	8
35	1DA18IS034	NIKHIL RAJ A G R	1	1		3		5	3	0		2						5	2	3		4	5	11	5
36	1DA18IS035	P J AKHIL	4	4	3	3		3	5	3	5							5	2	3		10	8	19	3
37	1DA18IS036	PRAJWAL K	5	3	2	2	2	5	4	4		5						5	2	3		10	8	16	8
38	1DA18IS037	PRAKRUTHI P	4	1	1	1		3	2	2		5						4	2	2		7	4	9	7
39	1DA18IS038	PRANJAL	5	3	5		5	5	3	4		5						5	2	3		10	12	15	8

S	0
A	4
B	19

CIE 2015-2019 Batch | SEE 2015-2019 | Sheet3

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50	1DA18IS049	SHOBHIT VERMA	4	2	2	4	5	5	3	3	0	4						3	2	1		8	13	12	5
51	1DA18IS050	SUJITH S	5	1	3	4		4	3		3							4	2	2		8	9	12	2
52	1DA18IS051	SUKESH M	2	1	0	1		5	2	2		4						4	2	2		5	3	11	6
53	1DA18IS052	SUMAN R M	4	2	0		2	5	1		0	5						4	2	2		8	4	8	7
54	1DA18IS053	SURYA C	4	0	0	3		4	3	1		5						4	2	2		6	5	10	7
55	1DA18IS054	TUSHAR JAAN	4	1	2	3		4	3	1		4						4	2	2		7	7	10	6
56	1DA18IS055	VARSHA SHASTRI	4	1	2		2	5	3	2		4						4	2	2		7	6	12	6
57	1DA18IS057	YASH SINHA	3	3	2	4		5	5	1	3	3						4	2	2		8	8	16	5
58	1DA18IS058	YASHASWINI H	4	0	0	1		5	0	1		5						4	2	2		6	3	8	7
59	1DA19IS400	APOORVA D B	2	2	1		3	3	3			4						5	2	3		6	6	9	7
60	1DA19IS401	KEERTHANA P	4	2	1	2		5	3	3		4		2	5	3	4	5	2	3		8	5	28	7
61	1DA19IS402	MAHANTHESHA H	4	0	1	0		5	2	2		4		3	3	3	4	5	2	3		6	3	21	11
62	1DA19IS403	NIRAKSHITH G	4	2	2	0		5	3	2		4						5	2	3		8	4	13	7
63	1DA19IS404	PAVITHRA S R	4	2	2			3	3	3		2						5	2	3		8	4	12	5
64	1DA19IS405	RAKSHITH R	4	1	1	1		5	3		3	4		2	5	3		5	2	3		7	4	24	7
65	1DA19IS406	SHREYAS M	3	1	1		0	5	2	2		4		2	3	3	5	5	2	3		6	3	20	12

	TARGET LEVEL
<=50%	LEVEL 1
>50 % AND <=70	LEVEL 2
>70%	LEVEL 3

CIE	CO1	CO2	CO3	CO4
Total students	64	64	64	64
Students above Target	53	40	54	56
CO Assessment (%)	82.81	62.50	84.38	87.50
CO Attainment Level	3	2	3	3

SEE Attainment	D1 TO CO4
Total students	64
Students above Target	23
CO Assessment (%)	35.94
CO Attainment Level	2

IA TARGET %

	Cos	CO1	CO2	CO3	CO4
Average CO Attainment		3	3	2	3

	2.5	2	2.5	2.5

PO attainment calculations from CO attainment Values

		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2.5			2.5	2.5					2.5	2.5					
CO2	2.0		2	2	2					2			2			
CO3	2.5		2.5	2.5	2.5					2.5			2.5			
CO4	2.3		2.5	2.5	2.5					2.5			2.5			
PO attainment on 3 scale			2.36	2.39	2.39					2.39	2.50		2.36			

3,4,9,10 2,3,4,9,12

CIE 2015-2019 Batch | SEE 2015-2019 | Sheet3

Ready

EXPERIMENT 1 CONTINUATION : GOOGLE SHEETS

AIM:

Working of Google Sheets to create the 'COURSE OUTCOME CALCULATION' Spreadsheet.

REQUIREMENTS :

Internet connection, Google account

THEORY:

Google sheets is a spreadsheet program included as a part of the free, web-based Google Docs Editor Suite offered by Google. It is an online spreadsheet app that lets you to create and format spreadsheets. People can work simultaneously, can see changes as they may make them and the change is saved automatically.

PROCEDURE :

1. Go to Google Apps on your web browser and Click on google Sheets.

2. Click on 'Blank' to get a new untitled spreadsheet and rename the file.

3.To create the 'COURSE OUTCOME CALCULATION' information through spreadsheets, insert in the cells, college Name, Branch, Name, Semester, Subject Name, Subject Code and Title.

4. The columns in the sheets should have serial number, USN, CIE I marks along with course outcomes (CO1, CO2, CO3) for the particular question (1a, 1b, 2a, 2b, 2c) that it belongs to and similarly CIE II marks along with course outcome and similarly Assignment I marks.
5. The next three columns are CO1, CO2, CO3 which are the sum of marks obtained in each course outcome through CIE and Assignment marks.
FORMULA: = SUM (E16, F16, G16, Q16) – where E16, F16, G16, 916 are particular cell numbers
6. We can apply this formula for all the root rows by clicking on the bottom right corner of the cell and dragging it to all rows, needed. Formulas are typed in that particular cell.
7. The average of each course outcome (75% of average) is calculated as:
FORMULA : = 0.75 * AVERAGE (T16: T30) - where T16: T30 are the number of rows to which the formula is applied in T column. The calculated value will appear in the cell.
8. The target level is set as LEVEL 1 (<40%), LEVEL2C>40% and <75%) and LEVEL3(>75%)
9. The total students for each course outcome (CO1, CO2, CO3) is inserted.
10.Students above target for each course outcome is calculated using :
FORMULA: = COUNTIF(T16:T30, ">=" & T13)

This is to check if each individual student has scored above the average calculate in Step 1 or not).The calculated value will appear in the cell.
11. To calculate CO Assessment (.1.) we use the formula,
FORMULA = (E43/E42 * 100)
E43 → Students above target
E42 → Total students
The calculated value will appear in the cell. The Co Assessment 1. is used to calculate the
12. CO Attainment Level, using:

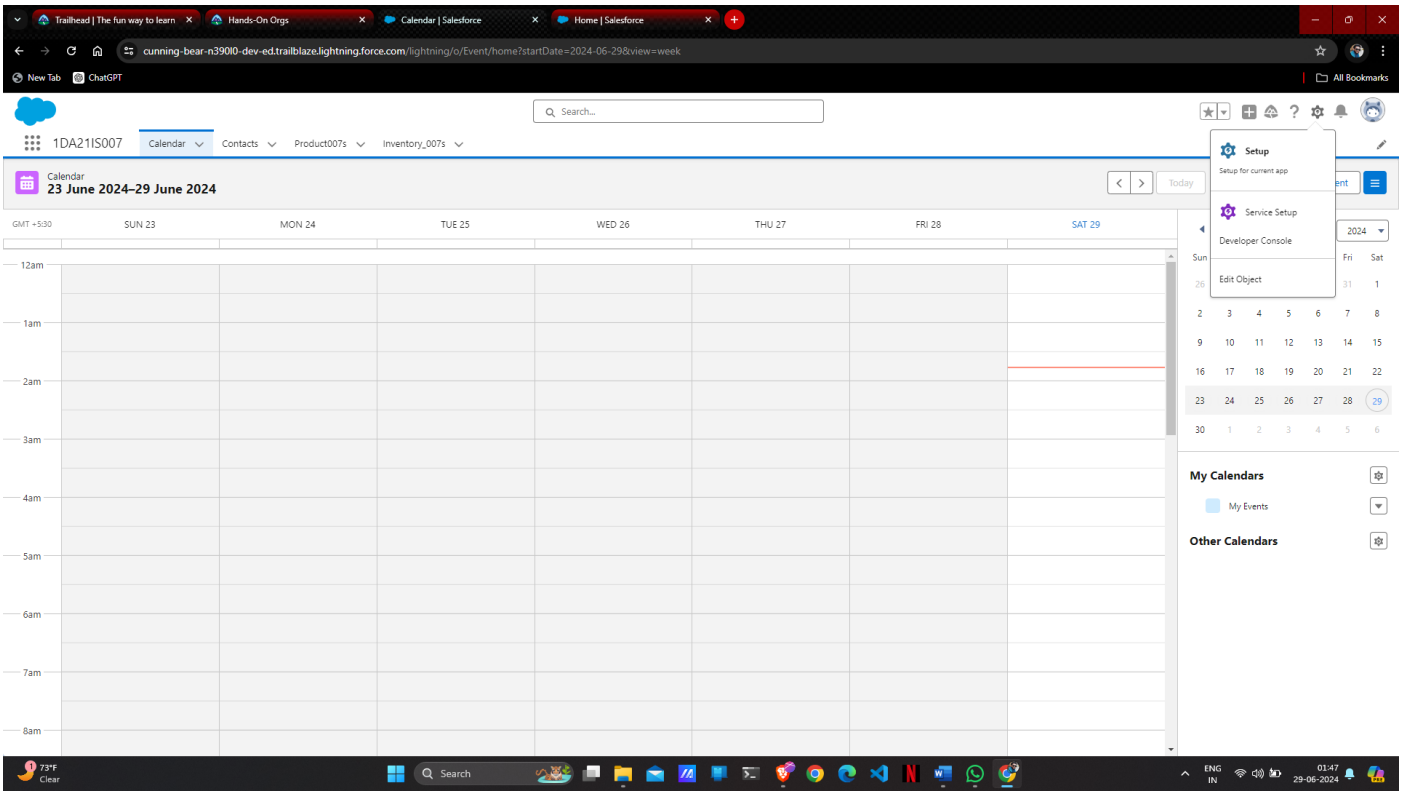
FORMULA: = IF (E44 > 75, "3", IF (AND (E44 > 40 , E44 < 75,
"2", IF (E44 < 40, "1", "0"))) where, E44 → CO ASSEGSEMENT (%)

13. We can calculate the above formulas for one course outcome, suppose, COI and then click on the bottom right corner of the cell and drag it to the columns CO2 and CD3 for each formula.

14. All the changes made are saved automatically.

RESULT:

The working of Google sheets for COURSE OUTCOME CALCULATION is demonstrated.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New Tab
ChatGPT
All Bookmarks
Search...
1DA21IS007
Calendar
Contacts
Product007s
Inventory_007s
Setup
Setup for current app
Service Setup
Developer Console
Edit Object
Calendar
23 June 2024–29 June 2024
Today
GMT +5:30
SUN 23
MON 24
TUE 25
WED 26
THU 27
FRI 28
SAT 29
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1am
2am
3am
4am
5am
6am
7am
8am
My Calendars
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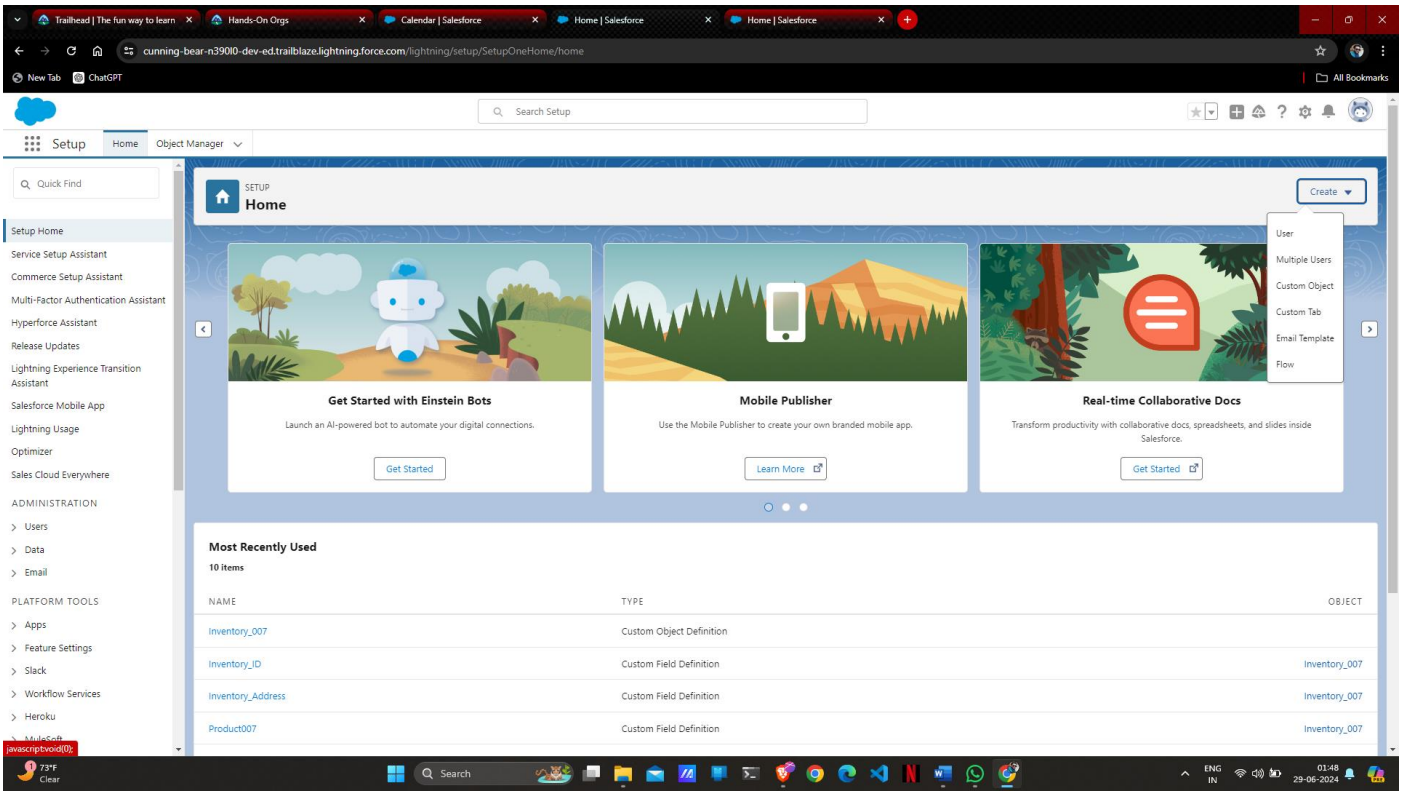
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New Tab
ChatGPT
All Bookmarks
Search Setup
Setup
Home
Object Manager
Quick Find
Setup Home
Service Setup Assistant
Commerce Setup Assistant
Multi-Factor Authentication Assistant
Hyperforce Assistant
Release Updates
Lightning Experience Transition Assistant
Salesforce Mobile App
Lightning Usage
Optimizer
Sales Cloud Everywhere
ADMINISTRATION
Users
Data
Email
PLATFORM TOOLS
Apps
Feature Settings
Slack
Workflow Services
Heroku
SETUP
Home
Create
User
Multiple Users
Custom Object
Custom Tab
Email Template
Flow
Get Started with Einstein Bots
Launch an AI-powered bot to automate your digital connections.
Get Started
Mobile Publisher
Use the Mobile Publisher to create your own branded mobile app.
Learn More
Real-time Collaborative Docs
Transform productivity with collaborative docs, spreadsheets, and slides inside Salesforce.
Get Started
Most Recently Used
10 items
NAME
TYPE
OBJECT
Inventory_007
Custom Object Definition
Inventory_ID
Custom Field Definition
Inventory_007
Inventory_Address
Custom Field Definition
Inventory_007
Product007
Custom Field Definition
Inventory_007

EXPERIMENT 2 : Salesforce : Product Information

AIM:

Create an application in Salesforce.com to maintain product information.

REQUIREMENTS:
Internet Connection, Google account, Salesforce account

THEORY:
Salesforce is a company that makes cloud-based Software designed to help businesses find more prospects, close more deals and wow customers with amazing service. Customer 360 is their complete suite of products, unites sales, service, marketing, commerce, and IT teams with a single, shared view of customer information, helping us grow relationship with customers and employees alike.

PROCEDURE :
1. Go to trailhead, salesforce.com on your browser.
2. Create an account on Salesforce.
3. Login to Salesforce and click on your profile icon on Hands-on-orgs.
4. Choose your playground and click on Launch.
5. Click on setup icon on the top right corner and select 'Setup' (Setup for current app).
6. Once the setup window appears, then select the 'Quick find' box and search App Manager and Click on it.
7. Click on New Lightning App, window appears, fill in the App Details, they include, AppName, Developer Name, and Description. Click on Next and then Next.

8. Select the Utility items and Navigation items required for your app. Click on next.
9. Choose the user profiles, select system administrator, that can access the app. Click on Save and finish
10. Click on App Launcher (:::), search for your app and click on it. A new window appears where you can view the features, tabs in your App.
11. Go to object manager (in Setup) and Click on New object Create a new custom object with label as product. Click on Save.
12. Click on object Manager and select the created custom object, Product. Select Fields and Relationships option and Click on new. The fields are as follows:

Field Data	Type
Product_id	autonumber
Product_name	text
Description	text area
Quantity	number
Price	number
Purshase_date	date

Click on Save, to save the fields.

13. Click on Home. In this Quick find box, search tabs and click on it.
14. Click on New, in the custom Object Tabs. Select object as Product and Select a Tab Style. Click on Next and then Next. Under 'Include Tab', select your custom App. Click Save.

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cunning-bear-n390l0-dev-ed.trailblaze.lightning.force.com/lightning/setup/ObjectManager/new

Setup | Home | Object Manager

SETUP
New Custom Object

New Custom Object

Help for this Page

Permissions for this object are disabled for all profiles by default. You can enable object permissions in permission sets or by editing custom profiles. Tell me more! Don't show this message again

Custom Object Definition Edit — Save | Save & New | Cancel

Custom Object Information — * Required Information

The singular and plural labels are used in tabs, page layouts, and reports.

Label — Example: Account

Plural Label — Example: Accounts

Starts with vowel sound

The Object Name is used when referencing the object via the API.

Object Name — Example: Account

Description

Context-Sensitive Help Setting — Open the standard Salesforce.com Help & Training window / Open a window using a Visualforce page

Content Name — --None--

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name — Example: Account Name

Data Type — Text — Warning: If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.

Optional Features

Allow Reports

Allow Activities

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cunning-bear-n390l0-dev-ed.trailblaze.lightning.force.com/lightning/setup/ObjectManager/01IdM0000008kC9/FieldsAndRelationships/view

Setup | Home | Object Manager

SETUP > OBJECT MANAGER
Inventory_007

- Details
- Fields & Relationships
- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Restriction Rules
- Scoping Rules
- Triggers
- Flow Triggers
- Validation Rules

Fields & Relationships

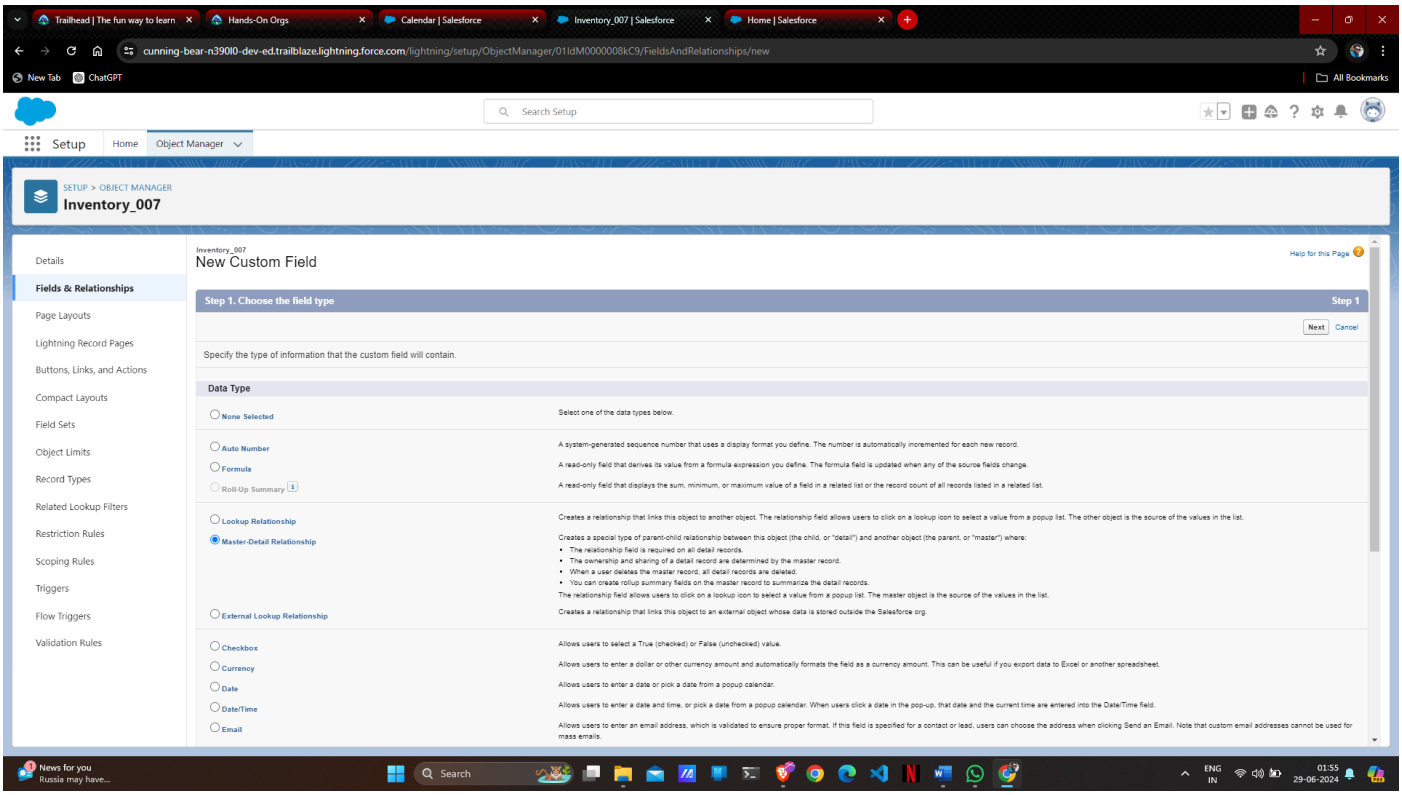
8 Items, Sorted by Field Label

Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Inventory_007 Name	Name	Text(80)		✓
Inventory_Address	Inventory_Address__c	Text Area(255)		
Inventory_Date	Inventory_Date__c	Date		
Inventory_ID	Inventory_ID__c	Auto Number		
Inventory_Mail	Inventory_Mail__c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Product007	Product007__c	Master-Detail(Product007)		✓

15. Now, you can view the Custom object Tab, Product in your App, Inventory.
16. Click on New, to add records under the object, 'Product'.

RESULT:
Application in salesforce.com to maintain product information is created.



Fields & Relationships

8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE
Created By	CreatedById	Lookup(User)
Inventory_007 Name	Name	Text(80)
Inventory_Address	Inventory_Address__c	Text Area(255)
Inventory_Date	Inventory_Date__c	Date
Inventory_ID	Inventory_ID__c	Auto Number
Inventory_Mail	Inventory_Mail__c	Email
Last Modified By	LastModifiedById	Lookup(User)
Product007	Product007__c	Master-Detail(Product007)

EXPERIMENT 3: Salesforce :Master-Child Relationship

AIM:

Create an application in salesforce.com to demonstrate master-child relationship for generating Invoice Bill,

REQUIREMENTS:

Internet connection, Google account, Salesforce account

THEORY:

Salesforce is a company that makes cloud-based software, designed to help businesses find more prospects, close more deals and wow customers with amazing service. Customer 360, is their complete suite of products, united Sales, service, marketing, commerce and IT teams with a single, Shared view of customer information, helping us grow relationship with customers and employees alike

PROCEDURE:

1. Go to trailhead.salesforce.com on your browser.

2. Create an account on Salesforce.

3. Login to salesforce and click on your Profile icon on

the top right corner and click on Launch. Hands-on-org

4. Choose your playground and dick on Launch.

5. Create an App, Inventory.

6. Go to Setup. Click on object manager. Click New Object.

7. Create a custom object named, Product.

8. Go to Object Manager, select the object, product.

Go to fields and Relationship and add the following

fields:

Field	DataType
Product_id	autonumber
Product_name	text
Description	text area
Quantity	number
Price	number
Purchase-date	date

9. Create another custom Object named, Invoice.

10. Go to object manager, select the object, Invoice.

Click on Fields and Relationship and add the following fields:

Field	Datatype
Invoice_id	autonumber
Invoice-name	text
Address	text area
Date	date
Mail	email

11. Create another field under Invoice's fields and Relationship . Click Next.

12. Select the object to which this object is related to, that is, in the drop down, select, Product, click on Next and then Save.

13. Go to Home. In the quick find box, search tabs and click on it.

14. Under custom object Tabs, click new, select object 'Product' and tab style. Click next and Save.

15. Under custom object Tabs, click new, select object 'Invoices' and tab style. Click next and Save.

16. Go to App Launcher and select your app, Inventory..

17. When the App window appears add records into object Product by clicking on New under the Product's tab.

18. To add records into the object 'Invoice', click on New, under the Invoice tab. Now, Select the particular Product record from the drop down list, to enter Invoice details for that record (Product).Here, Invoice is the master and Product is the child.

RESULT:

The application in salesforce.com to demonstrate master-child relationship for generating Invoice Bill is created.

Page Edit

Save | Quick Save | Cancel | Where is this used? | Component Reference | Preview | Download

Page Information = Required Information

Label: Feb25VFP

Name: Feb25VFP

Description:

Available for Lightning Experience, Lightning Communities, and the mobile app: ☑

Require CSRF protection on GET requests: ☑

Visualforce Markup | Version Settings

```
<apex:page standardController="Account" extensions="MyControllerExtensionExample">
    <apex:form >


        <apex:pageBlock title="Page Block 1">
           <apex:pageBlockSection title="Page Block Section 1 | Custom Controller Example" Columns="2">
               <apex:pageBlockSectionItem ><Apex:commandButton value="Greeting" reRender="id1" Action="{!ShowGreeting}"/></apex:pageBloc
               <apex:pageBlockSectionItem ><Apex:outPutLabel id="id1"> {!message} </Apex:outPutLabel> </apex:pageBlockSectionItem>
           </apex:pageBlockSection>
        </apex:pageBlock>



      <apex:pageBlock title="Page Block 2">
           <apex:pageBlockSection title="Page Block Section 2 | Standard Controller Example" Columns="2">
               <apex:pageBlockSectionItem >New Company:<apex:inputField  value="{!Account.name}" required="False" /></apex:pageBlockSect
               <apex:pageBlockSectionItem ><apex:commandButton value="Standard Save" action="{!save}"/></apex:pageBlockSectionItem>
           </apex:pageBlockSection>
```

https://c.ap1.visual.force.com/apex/apexpageblock

CRM SALESFORCE TRAINING Page Block

apexpageblock

```
<apex:page sidebar="false" showHeader="false" >
  <apex:pageBlock title="CRM SALESFORCE TRAINING">
        </apex:pageBlock>
</apex:page>
```

EXPERIMENT 4 : Salesforce: Visual Force page

AIM :

Develop a Visual Force Page to demonstrate the working of basic visual components.

REQUIREMENTS:

Internet connection, salesforce account

PROCEDURE:

1. Go to trailhead.salesforce.com on your browser and
login to your Salesforce account.
2. Click on profile icon present in the top right corner and
select Hands-on-orgs. Launch the playground.
3. Click on Setup icon in the top right corner and select Developer Console.
4. Click on File in the Developer Console window. Click New >> Visualforce Page.
5. Enter the filename as index.vfp Enter the following code:

```
<apex:page>
<h1> intro</h1>
<p> { ! $ User.FirstName & ‘ ‘ & $ User.LastName} </p>
<p> The year today is { !YEAR((TODAY())} </p>
<p> The date tomorrow will be { ! DAY(TODAY()+1)} </p>
<p> Lets find maximum : {!MAX(1,2,81,9,80)} </p>
<p> The square root of 81 is : {!SQRT(81)}</p>
</apex: page>
```

6. Save the file and click on Test>>Run All
7. Repeat Steps 5 and 6 for the programs index1.vfp and index2.vfp

Index1.vfp

```
<apex:page standardController="Account">
<apex:pageBlock title="User Details">
<apex:pageBlockSection title="Expand">
{!$User.FirstName }{!$User.LastName }
({!$User.Username})
```

```
</apex:pageBlockSection>
</apex:pageBlock>
<apex:pageBlock title="Morning Session">
<apex:pageBlockSection title="Expressions" columns="1">
{! $User.FirstName & ' ' & $User.LastName }
<p>The year today is {!YEAR(TODAY())}</p>
<p>Tomorrow will be day number {!DAY(TODAY() + 1) }</p>
<p>Let's find a maximum: {!MAX(1,2,3,4,5,6,85,4,3,2,1)}</p>
<p>The square root of 81 is {!SQRT(81)}</p>
<p>Is it true? {!CONTAINS('salesforce.com','force.com')}</p>
<p> {!IF(CONTAINS('salesforce.com','force.com'),
'Yes','No')}</p>
<p>{!IF(DAY(TODAY()) < 4,
'Before the 4th' , 'The 4th or after')}</p>
</apex:pageBlockSection>
</apex:pageBlock>
<apex:pageBlock title="Afternoon Session">
<apex:pageBlockSection title="Account Summary">
Name: {!Account.Name } <br/>
Phone: {!Account.Phone } <br/>
Industry: {!Account.Industry } <br/>
Revenue: {!Account.AnnualRevenue } <br/>
</apex:pageBlockSection>
</apex:pageBlock>
<apex:pageBlock title="Contacts">
<apex:pageBlockTable value="{! Account.contacts}" var="contact">
<apex:column value="{!contact.Name}"/>
<apex:column value="{!contact.Title}"/>
<apex:column value="{!contact.Phone}"/>
</apex:pageBlockTable>
</apex:pageBlock>
</apex:page>
```

index2.vfp

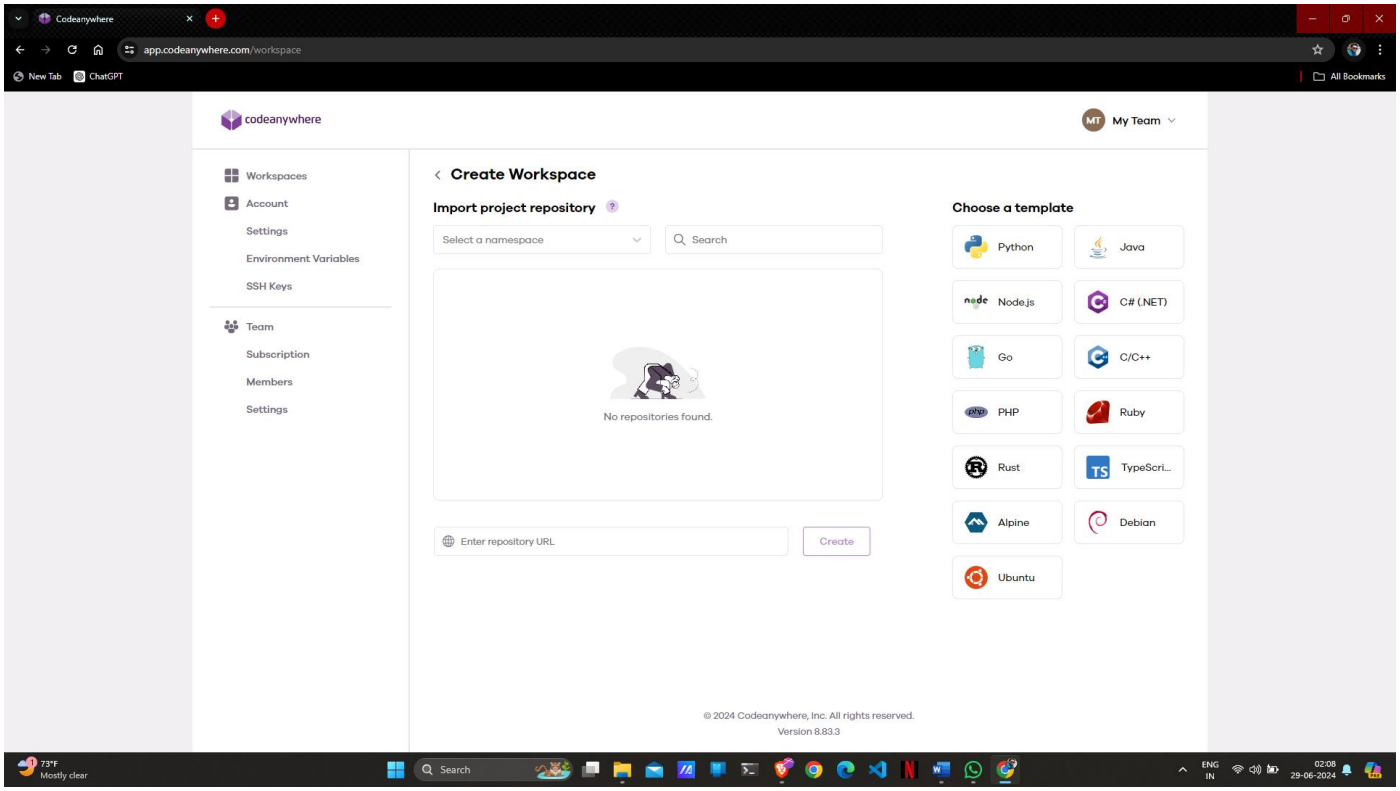
```
<apex:page standardController="Account">
```

```
<apex:form >

<apex:pageBlock title="Edit Account">

<apex:pageBlockSection >

<apex:inputField value="{! Account.Name}"/>

<apex:inputField value="{! Account.Phone}"/>

<apex:inputField value="{! Account.Industry}"/>

<apex:inputField value="{! Account.AnnualRevenue}"/>

</apex:pageBlockSection>

<apex:pageBlockButtons >

<apex:commandButton action="{! save}" value="Savelabel"/>

</apex:pageBlockButtons>

</apex:pageBlock>

</apex:form>

</apex:page>
```

8. Click on the Preview to the output of the program.
9. For all the program, index1.vfp , enter the account details, Click on the Save Label.
10. Now, copy the id of that particular record from the ‘url’ above.
11. Click on the Preview to the output of index2.vfp.
12. In the url, paste the id copied previously and press enter to see the account details on the page.

RESULT:

The working of the basic visual components is shown by developing a visual force page.




```
Enter 2 : To View course
Enter 3 : To Remove course
Please Select An Above Option: 1

Enter the course id: 02
Enter The Stream Name: CSE
Enter available opportunities or courses in this stream: AI

want To Run Again Y/n: y

Enter 1 : To Add course
Enter 2 : To View course
Enter 3 : To Remove course
Please Select An Above Option: 2

Select the search criteria :
1. c_id
2. Stream
3. All
Enter the choice : 3

The course details are as follows :
course_id, Stream_Name, Course_opportunities
('01', 'ISE', 'CC')
('02', 'CSE', 'AI')

want To Run Again Y/n: y
```

EXPERIMENT 5: Codeanywhere and Database program

AIM:

Develop a web application project using Codeanywhere.com and collaborate with backend database.

REQUIREMENTS:

Internet Connection, Code anywhere account

THEORY:

Codeanywhere is a cloud IDE. It saves time by deploying a development environment in second enabling you to code, learn, build and collaborate on your projects. It is a fully featured web-based code editor. One can team up with their fellow developers and collaborate on their projects. It has pre-installed language runtime and tools for all popular programming languages.

PROCEDURE:

1. Create an account in codeanywhere by providing your email-id and password through sign up option.

2. Verify your account by clicking on the link sent to the given email id.

3. Create a new container in the dashboard by clicking on 'New Container'

4. Select Python and Click on create.

5. Once the Container is created, an IDE workspace will open

6. Create new project by clicking on new folder option

and name it 'Project'.

7. Create a new file named 'dbprogram.py' by clicking on new file option.

8. Open 'new tab' and go to official website of Codcanywhere. Then click on 'Dashboard' and go to 'Advanced Topics".Now Click on Installing MSBL.

To install MySQL in your container, you have to run the following commands in the IDE terminal:

sudo apt-get update

sudo apt-get install mysql

sudo service mysql status

9. Once the installation is done, type the following

command:

mysql -- user = root -- password = root

10. Now create a new database named 'COURSEMATCH'

using the following command:

create database COURSEMATCH;

USE COURSEMATCH;

11. Now create new table in the database using the

following command:

Create table course_details (Cid varchar(10),

Stream varchar(5), Cname varchar(10));

12. Insert values into the table using the command:

insert into course-details values ('1', 'ISE', 'CC')

13. To display the table, use the following command:

select * from course_details;

14. To describe the table, use the following command:

desc course_details;

15. Prerequisites to run the program:

Download mysql-connector module

pip install mysql - connector – python

→ Download pandas module

Pip install pandas

16. Now in the file 'doprogram.py', write the following code:

```
import os
import platform
import mysql.connector
import pandas as pd
mydb = mysql.connector.connect (host = "localhost",
user = "root",
passwd = "root",
database = "COURSEMATCH")
mycursor = mydb.cursor()
def courseInsert():
L = ()
c_id = int(input("Enter the course id : "))
L.append (c_id)
Stream = input("Enter stream name: ")
L.append(stream)
```

```
c_name = input("Enter courses in this stream: ")
L.append (c_name)
course = (L)
sql = "insert into course_details (c_id, stream, c_name) values (%s, %s, %s)"
mysql.execute(sql, course)
mydb.commit()

def Cview():
print(" Select the search criteria")
print(" 1. cid")
print(" 2. Stream")
print (" 3. ALL")
ch = int (input("Enter the choice: "))
if ch==1:
Sc = int (input("C=id: "))
C = (S)
sql = "Select * from course details where
c_id = '%s'"
mycursor.execute(sql, ())
elif ch==2:
S = input("Enter stream Name: ")
n = (S)
sql = "select * from course details where
Stream = '%s'"
mycurson.execute (sql, n)
elif ch == 3:
Sql = "select * from Course-details"
mycursor.execute (sql)
res = mycursor.fetchall()
print(" The course details are as follows : ")
print(" Course_id, stream_Name, Course-Opportunities"
for x in res :
print (x)
```

```
def removeCourse():
C_id = int (input("Enter the couse-id of the
Course to be deleted : "))
Ci = (C_id.)
Sql = "Delete from course_details where c_id=%s"
mycursor.execute (Sql, ci)
mydb.commit()
def Menuset():
print("Enter 1 : To Add Couse")
print(" Enter 2 : To view Course")
print(" Enter 3: To remove Course")
try:
user Input = int (input(" Please select an above
option : "))
except value Error:
exit ("In Hey! That's not a number!")
else:
print("\n")
if (userInput == 1):
course_Insert()
elif (userInput == 2):
view().
elif (userInput == 3):
removeCourse()
else:
print("Enter correct choice :..")
Menuset ()

def runAgain():
runAgain = input('\n Want to run again y/n: ")
while (runAgain.lower() == 'y'):
if (platform.system() == "windows"):
print (os.system ('cls'))
else:
```

```
print (os.system ('clear'))

MenuSet ()

runAgn = input('\n Want to run again y/n :")

runAgain ()
```

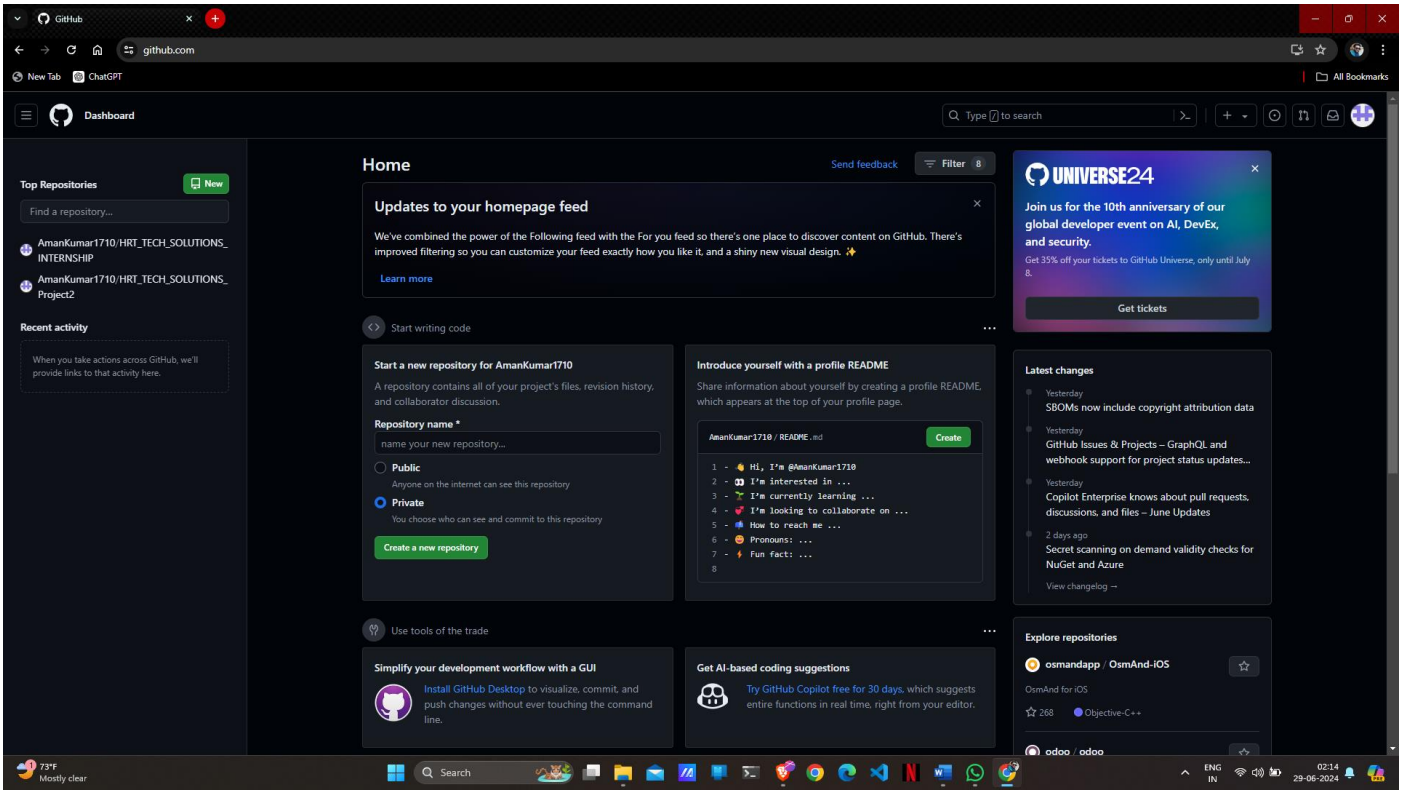
17. In the console/terminal to run the code type:

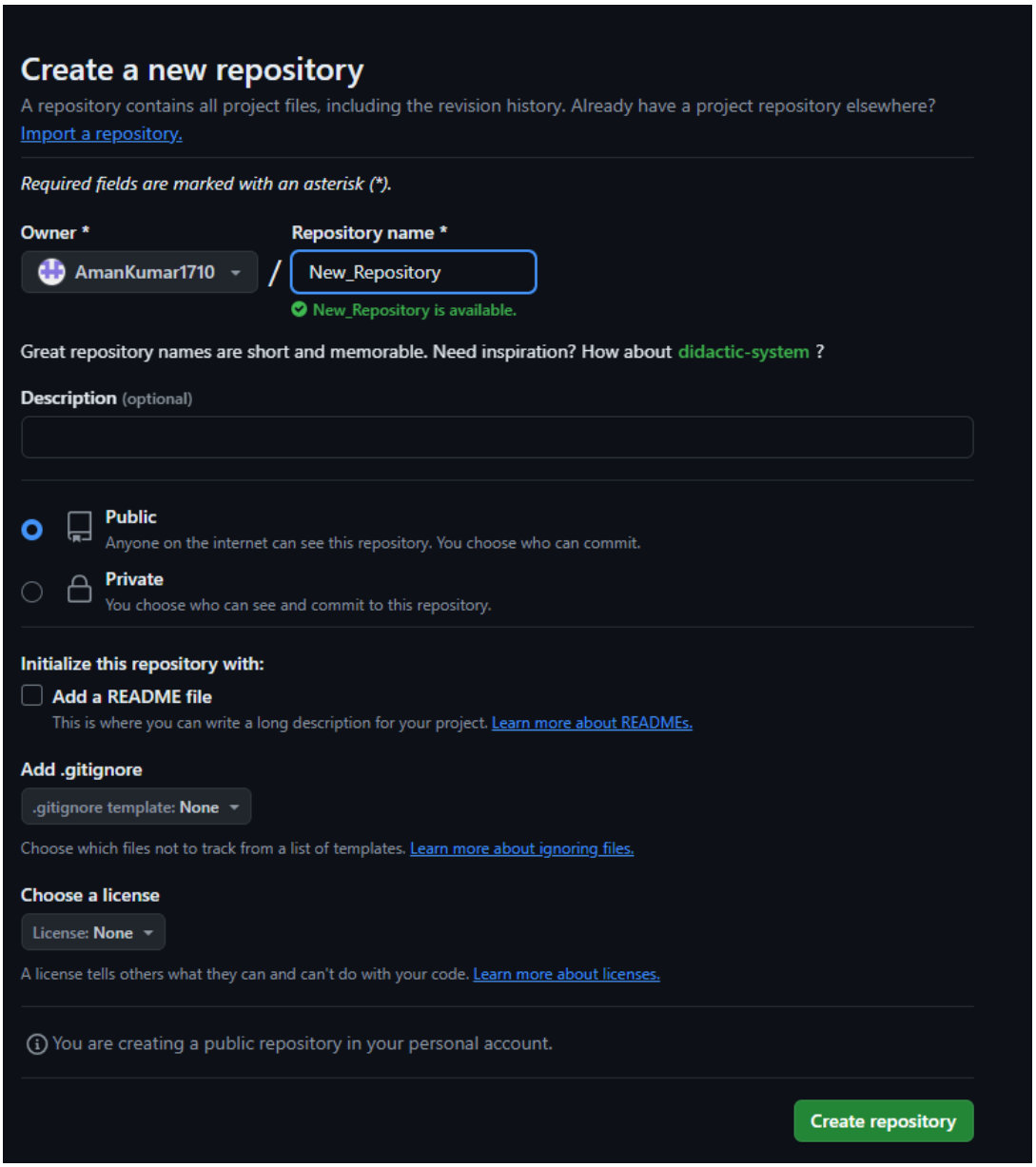
```
python dbprogram.py
```

18. The output will be displayed.

RESULT:

Thus ,Development of web application project using Codeanywhere.com is complete and collaborated it with backend database.


GitHub
github.com
New Tab
ChatGPT
All Bookmarks
Dashboard
Type / to search
Top Repositories
New
Find a repository...
AmanKumar1710/HRT_TECH_SOLUTIONS_INTERNSHIP
AmanKumar1710/HRT_TECH_SOLUTIONS_Project2
Recent activity
When you take actions across GitHub, we'll provide links to that activity here.
Home
Send feedback
Filter 8
Updates to your homepage feed
We've combined the power of the Following feed with the For you feed so there's one place to discover content on GitHub. There's improved filtering so you can customize your feed exactly how you like it, and a shiny new visual design. ✨
Learn more
UNIVERSE24
Join us for the 10th anniversary of our global developer event on AI, DevEx, and security.
Get 35% off your tickets to GitHub Universe, only until July 8.
Get tickets
Start writing code
Start a new repository for AmanKumar1710
A repository contains all of your project's files, revision history, and collaborator discussion.
Repository name *
name your new repository...
Public
Anyone on the internet can see this repository
Private
You choose who can see and commit to this repository
Create a new repository
Introduce yourself with a profile README
Share information about yourself by creating a profile README, which appears at the top of your profile page.
AmanKumar1710 / README.md
Create
1 - 👋 Hi, I'm @AmanKumar1710
2 - 👀 I'm interested in ...
3 - 🌱 I'm currently learning ...
4 - 💞️ I'm looking to collaborate on ...
5 - 📫 How to reach me ...
6 - 😄 Pronouns: ...
7 - ⚡ Fun fact: ...
8
Latest changes
Yesterday
SBOMs now include copyright attribution data
Yesterday
GitHub Issues & Projects – GraphQL and webhook support for project status updates...
Yesterday
Copilot Enterprise knows about pull requests, discussions, and files – June Updates
2 days ago
Secret scanning on demand validity checks for NuGet and Azure
View changelog →
Use tools of the trade
Simplify your development workflow with a GUI
Install GitHub Desktop to visualize, commit, and push changes without ever touching the command line.
Get AI-based coding suggestions
Try GitHub Copilot free for 30 days, which suggests entire functions in real time, right from your editor.
Explore repositories
osmandapp / OsmAnd-iOS
OsmAnd for iOS
268
Objective-C++
odoo / odoo
73°F
Mostly clear
Search
ENG
IN
02:14
29-06-2024


Create a new repository
A repository contains all project files, including the revision history. Already have a project repository elsewhere?
Import a repository.
Required fields are marked with an asterisk (*).
Owner *
AmanKumar1710
Repository name *
New_Repository
New_Repository is available.
Great repository names are short and memorable. Need inspiration? How about didactic-system ?
Description (optional)
Public
Anyone on the internet can see this repository. You choose who can commit.
Private
You choose who can see and commit to this repository.
Initialize this repository with:
Add a README file
This is where you can write a long description for your project. Learn more about READMEs.
Add .gitignore
.gitignore template: None
Choose which files not to track from a list of templates. Learn more about ignoring files.
Choose a license
License: None
A license tells others what they can and can't do with your code. Learn more about licenses.
You are creating a public repository in your personal account.
Create repository

EXPERIMENT 6: Working of Git and Github

AIM :

Demonstrate the working of Git and Github.

REQUIREMENTS:

Internet Connection, Github account.

THEORY:

Github is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and source code management. It provides access control and several collaboration features such as bug tracking, feature requests, task management.

PROCEDURE:

1. Create an account on GitHub by providing your email-id and password. Give a username.

2. Verify your account by entering the code sent to your email-id.

3. To create a repository on GitHub, click on create repository option. Enter the repository name and click on create repository.

4. Open new tab and type 'git-scm.com', to download Git for Windows.

5. Create a folder on your PC with few files and directories.

6. Right click on the folder created and click on 'Git Bash Here' option.

7. Type the command:

git init

to create an empty Git repository in specified directory

8. To clone the repository created on GitHub onto the local machine, first copy the url from GitHub and then type the following command on Git console:

git clone <repo>

9. Type the command:

git config user.name <name>

git.config user.email <email>

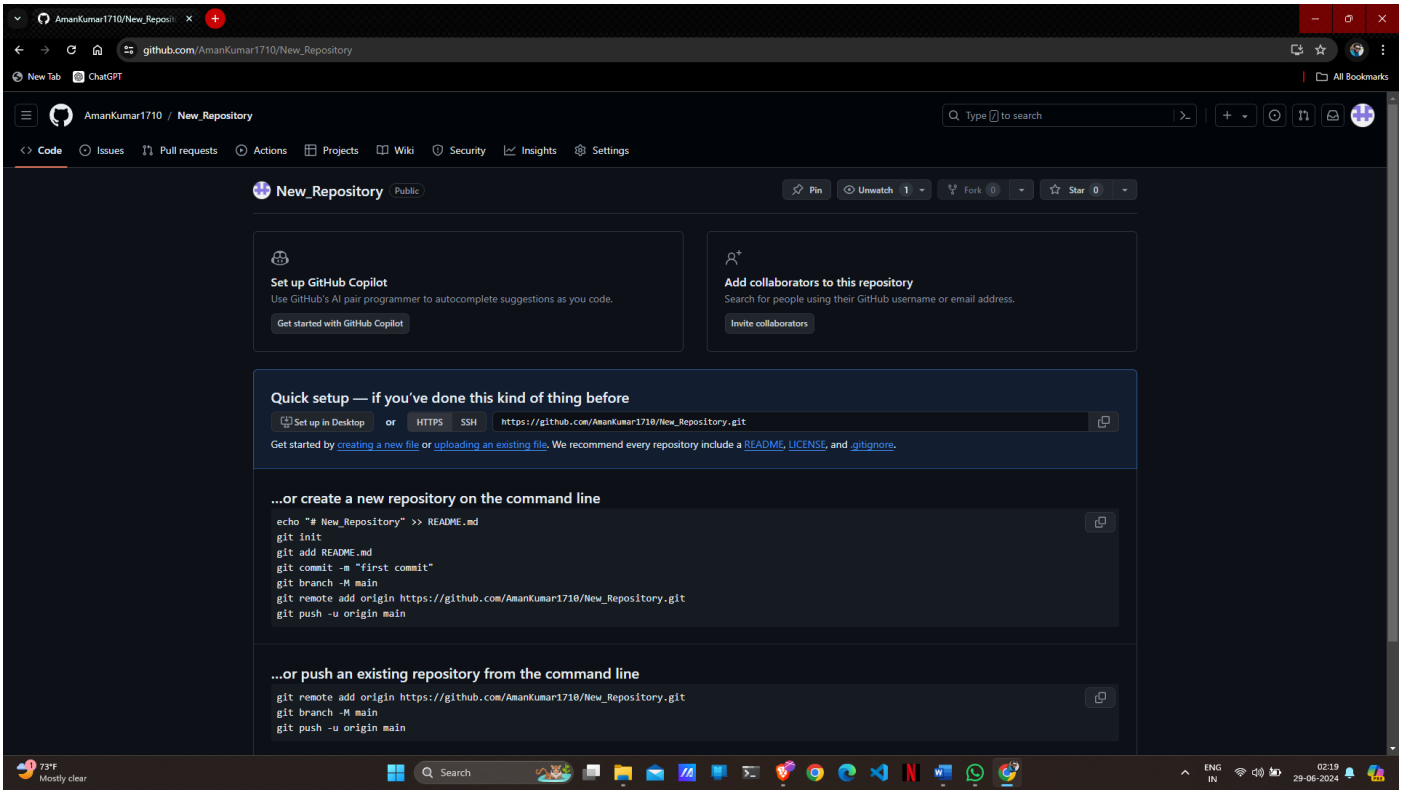
to define author name and email to be used for all commits in the current repository.

10. To add a file or directory to your repository before next commit, type

the command:

git add <file> / <directory>

11. To list which files are staged, upstaged, and untracked, type the




```
IHECHIKARA@DESKTOP-KGB10SU MINGW64 ~/Desktop/Git and GitHub tutorial
$ git init
Initialized empty Git repository in C:/Users/IHECHIKARA/Desktop/Git and GitHub tutorial/.git/
```

```
IHECHIKARA@DESKTOP-KGB10SU MINGW64 ~/Desktop/Git and GitHub tutorial (main)
$ git commit -m "first commit"
[main (root-commit) 48195f0] first commit
 1 file changed, 8 insertions(+)
 create mode 100644 todo.txt
```

```
IHECHIKARA@DESKTOP-KGB10SU MINGW64 ~/Desktop/Git and GitHub tutorial (main)
$ git push -u origin main
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 325 bytes | 325.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/ihechikara/git-and-github-tutorial.git
 * [new branch]      main -> main
Branch 'main' set up to track remote branch 'main' from 'origin'.
```

```
IHECHIKARA@DESKTOP-KGB10SU MINGW64 ~/Desktop
$ git clone https://github.com/ihechikara/git-and-github-tutorial.git
Cloning into 'git-and-github-tutorial'...
remote: Enumerating objects: 14, done.
remote: Counting objects: 100% (14/14), done.
remote: Compressing objects: 100% (11/11), done.
remote: Total 14 (delta 2), reused 10 (delta 1), pack-reused 0
Receiving objects: 100% (14/14), done.
Resolving deltas: 100% (2/2), done.
```

command:

git status -s

12. To commit the files or directory, to save changes permanently, type the command:

git commit -m <message>

13. To get the commit history, type,

git log

14. To push the files stored in the folder on the local machine to remote

GitHub repository, type,

git push <repo><branch>

repo -> url (via HTTP or SSH)

• It creates a named branch in the remote repository if it doesn't exist.

• Once, you click enter, we get a dialog box asking to sign in with a code, click on it.

• A url with code will be displayed.

• Copy the code and click on the url.

• The url takes you to a device activation page and paste the code there. Then click on 'Authorize GitCredentialManager'.

• Now the file is pushed onto GitHub remote repository and can be accessed anywhere with the internet and login credentials.

15. To create a git ignore files, type the command:

touch .gitignore

16. Type the filename along with extension inside the gitignore file

created, and these files will be ignored when pushed to the

repository.

17. To check the branch in the console,

Type:

git checkout -b B

Now the branch is B

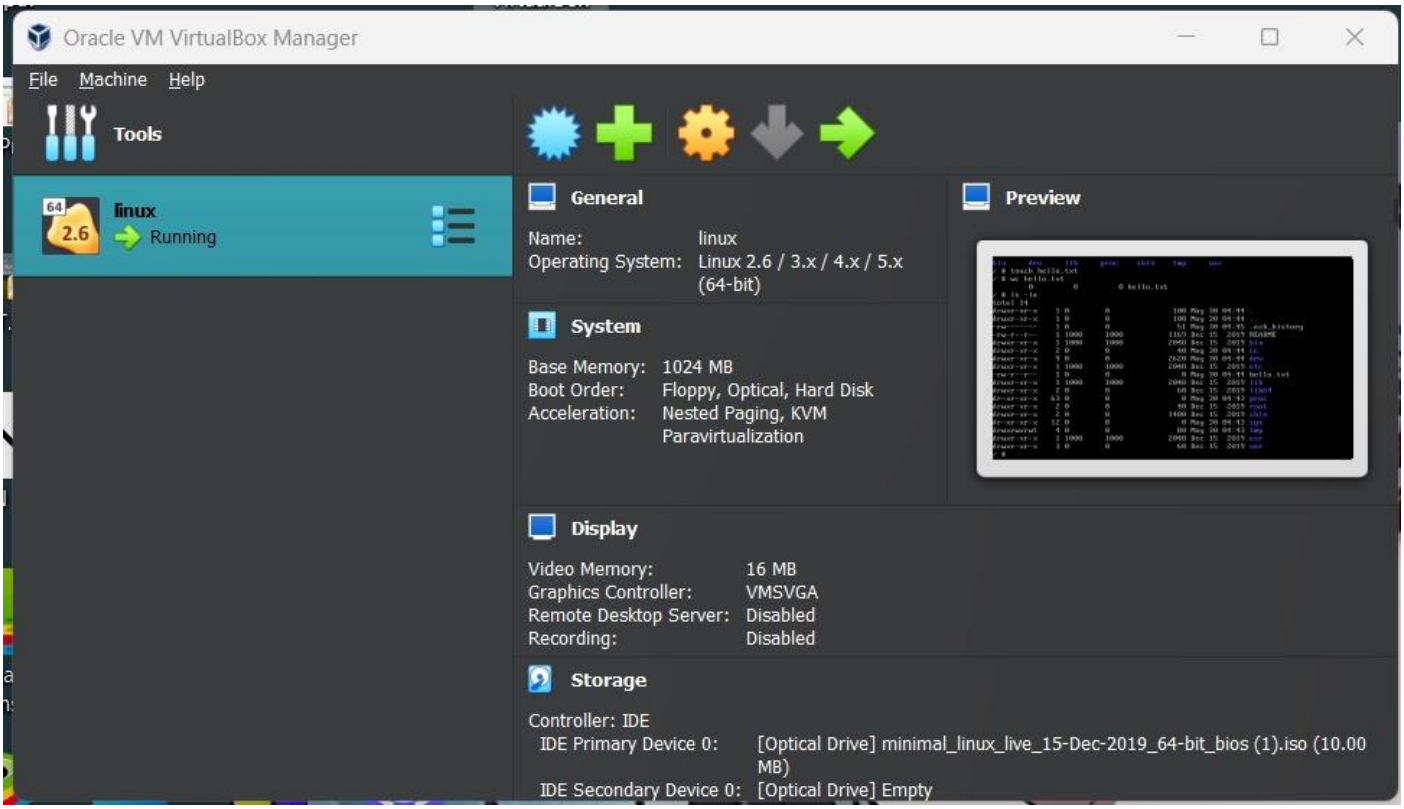
18. Type:

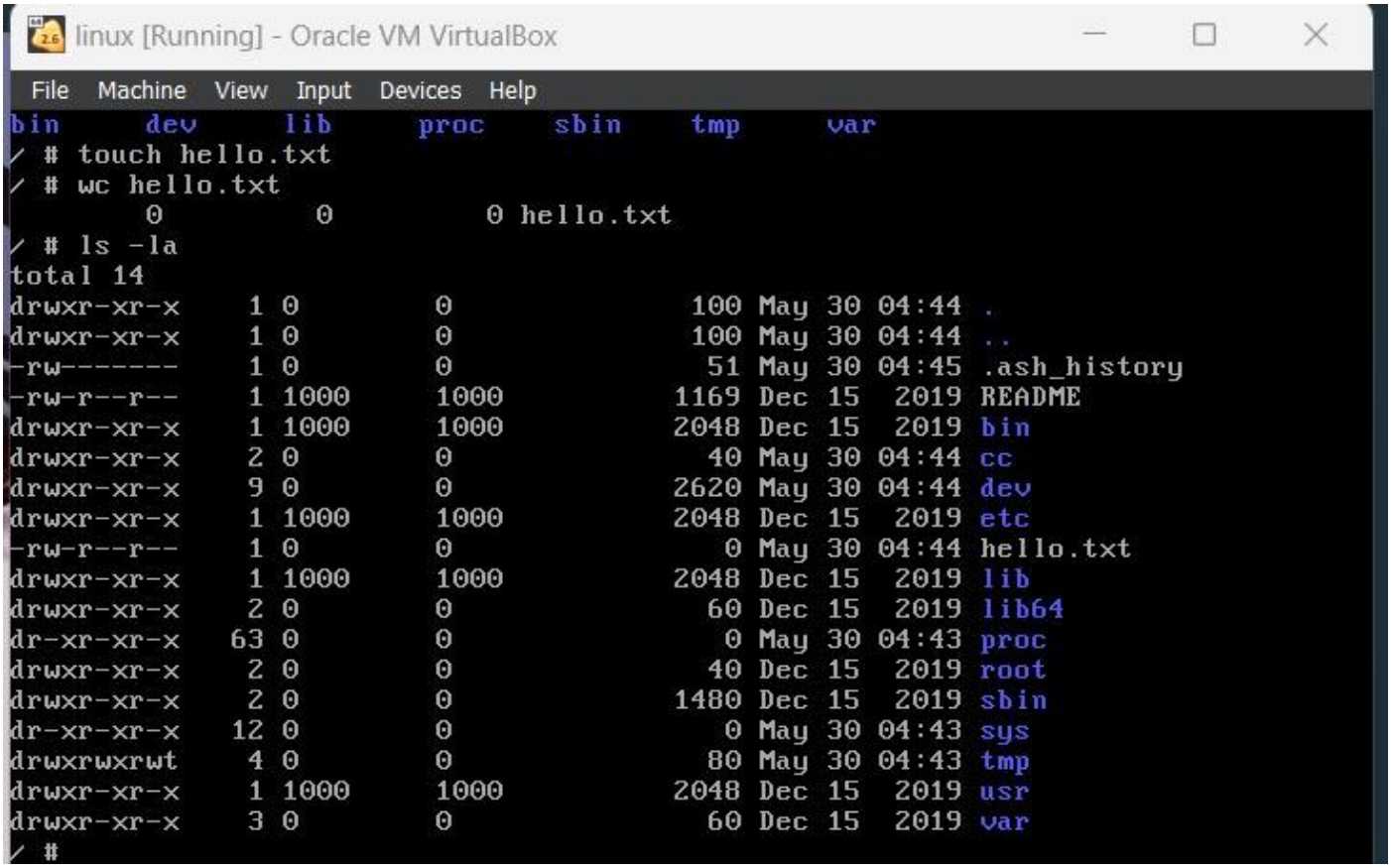
git push origin B

A new branch named B is created in the GitHub repository.

RESULT:

Thus , the demonstration of Git and Github is complete.


Oracle VM VirtualBox Manager
File Machine Help
Tools
linux
Running
General
Name: linux
Operating System: Linux 2.6 / 3.x / 4.x / 5.x (64-bit)
System
Base Memory: 1024 MB
Boot Order: Floppy, Optical, Hard Disk
Acceleration: Nested Paging, KVM Paravirtualization
Preview
Display
Video Memory: 16 MB
Graphics Controller: VMSVGA
Remote Desktop Server: Disabled
Recording: Disabled
Storage
Controller: IDE
IDE Primary Device 0: [Optical Drive] minimal_linux_live_15-Dec-2019_64-bit_bios (1).iso (10.00 MB)
IDE Secondary Device 0: [Optical Drive] Empty


linux [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
bin dev lib proc sbin tmp var
/ # touch hello.txt
/ # wc hello.txt
0 0 0 hello.txt
/ # ls -la
total 14
drwxr-xr-x 1 0 0 100 May 30 04:44 .
drwxr-xr-x 1 0 0 100 May 30 04:44 ..
-rw------- 1 0 0 51 May 30 04:45 .ash_history
-rw-r--r-- 1 1000 1000 1169 Dec 15 2019 README
drwxr-xr-x 1 1000 1000 2048 Dec 15 2019 bin
drwxr-xr-x 2 0 0 40 May 30 04:44 cc
drwxr-xr-x 9 0 0 2620 May 30 04:44 dev
drwxr-xr-x 1 1000 1000 2048 Dec 15 2019 etc
-rw-r--r-- 1 0 0 0 May 30 04:44 hello.txt
drwxr-xr-x 1 1000 1000 2048 Dec 15 2019 lib
drwxr-xr-x 2 0 0 60 Dec 15 2019 lib64
dr-xr-xr-x 63 0 0 0 May 30 04:43 proc
drwxr-xr-x 2 0 0 40 Dec 15 2019 root
drwxr-xr-x 2 0 0 1480 Dec 15 2019 sbin
dr-xr-xr-x 12 0 0 0 May 30 04:43 sys
drwxrwxrwt 4 0 0 80 May 30 04:43 tmp
drwxr-xr-x 1 1000 1000 2048 Dec 15 2019 usr
drwxr-xr-x 3 0 0 60 Dec 15 2019 var
/ #

EXPERIMENT 7: Virtual box

AIM :

Demonstrate Virtualization by installing Virtual box / VMware Workstation with different flavors of OS on Windows 10

REQUIREMENTS:

Virtual Box installed, os other than windows 10

THEORY:

Virtual Box is a general-purpose full virtualizer for x86 hardware, targeted at server, desktop and embedded use.

PROCEDURE:

1. Go to Oracle virtual box on your web browser.Click on 'downloads' option

2. Under Virtualbox 6.1.34 platform packages, Click on "Windows hosts", VM cs downloaded

3. A dialog window appears, click on Next and then 'Finish'

4. After installation, click on New on Oracle VM and Name your file.

5. Set the memory size as required

6. Set hard disk by clicking on 'create a virtual hard disk now'.

7. Click on Settings, Go to storage, Click on empty. Click on disc symbol at the right corner of the window and click on 'Choose disk file'. Select folder containing OS to be virtually used.

8. Double click on the Machine you created in Step 4 to run the machine (power on)

9. To create a directory, use the command

mk dir CC

10. To list all files, use the command

ls

11. To change directory, use the command

cd CC

12. To create a new file,

cat > 'file.name'

This is my first file.

13. To remove a file,

rm 'file name'

14. # wc 'file_name'

This command tells how many lines, words, and characters are these in a file.

15. The grep command is used to look for strings in the file

grep -i "this" 'file_name'

Output: This is my first file

16. The command to know the present working directory:

pwd

17. To view file contents,

eat 'file-name'

18. To view the online reference manuals,

man

19. Command to move / rename file file 1 to file 2:

mv file 1 file 2

20. The command to display number of bytes occupied by the contents of the directory

du

21. The command to display the calender,

#cal

22. The Command to display date and time,

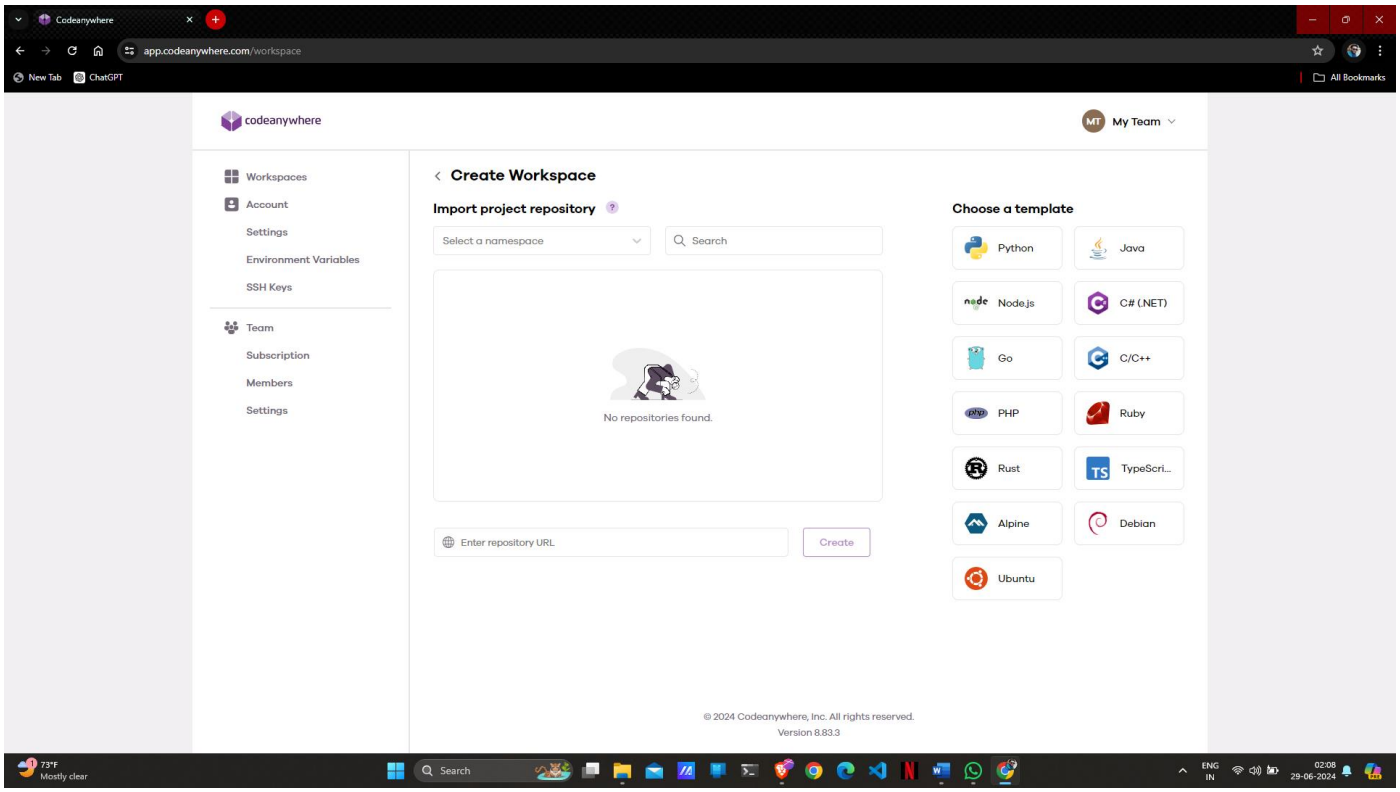
#date

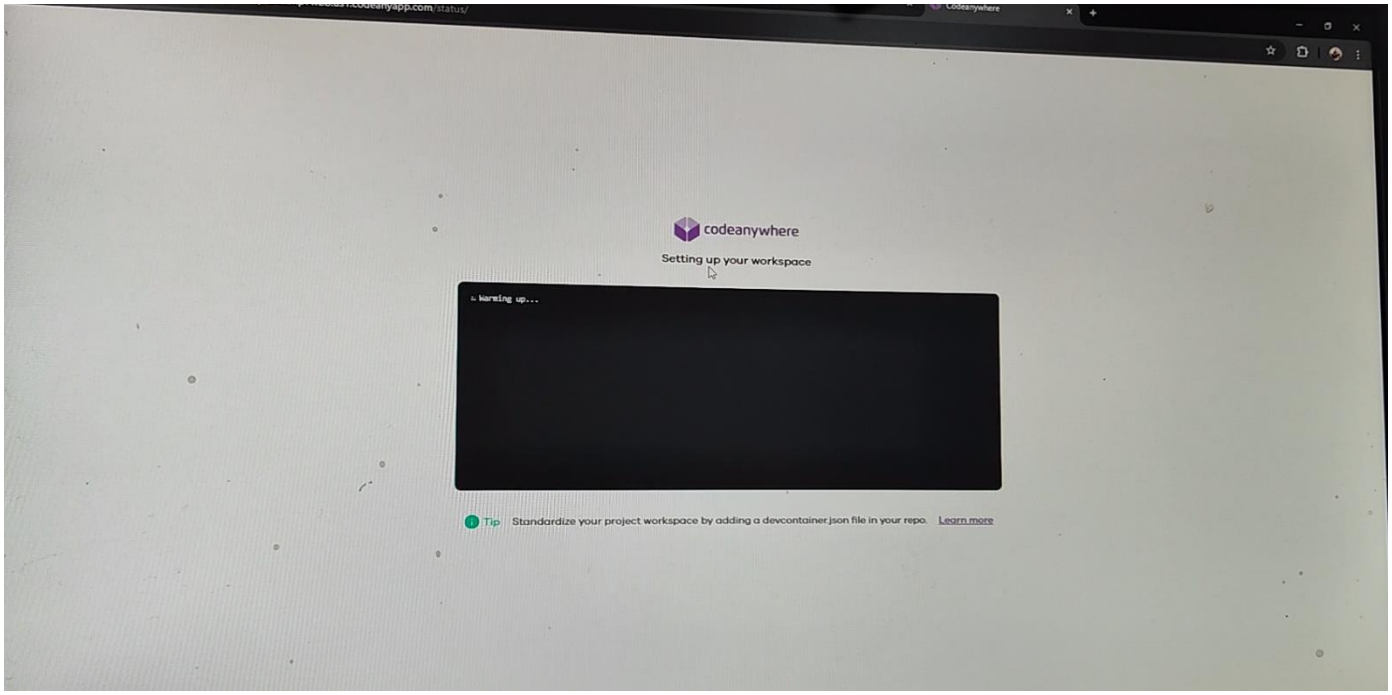
23. The command to remove a directory,

om CC

RESULT:

The working of Virtual Box to demonstrate Virtualization is shown.






```
PS C:\Users\Lenovo\Desktop\python files> & C:/Python312/python.exe "c:/Users/Lenovo/Desktop/python files/p1.py"
Total number of lines are: 3
Total number of lines starting with A are: 1
Total number of lines starting with B are: 1
Total number of lines starting with C are: 1
PS C:\Users\Lenovo\Desktop\python files>
```

```
PS C:\Users\Lenovo\Desktop\python files> & C:/Python312/python.exe "c:/Users/Lenovo/Desktop/python files/p1.py"
Enter the word to search: yoboss
yoboss found 1 times in the file
PS C:\Users\Lenovo\Desktop\python files>
```

EXPERIMENT 8: FILE HANDLING IN CODEANYWHERE

AIM :

Demonstrate a file handling program on Codeanywhere.com.

REQUIREMENTS:

Internet Connection, Code anywhere account

THEORY:

Codeanywhere is a cloud IDE. It saves time by deploying a development environment in seconds enabling you to code, learn, build and collaborate on your projects. One can team up with their fellow developers and collaborate on their projects. It has pre-installed Language runtime and tools for all popular programming languages.

PROCEDURE:

1. Create an account in Codeanywhere by providing your email-id and password through Sign up option.
2. Verify your account by clicking on the link sent to given email-id.
3. Create a new container in the Dashboard by clicking on 'New - Container'.
4. Select Python and click on create
5. Once the container is created, an IDE workspace will open.
6. Create new project by clicking on new folder option and name it 'Project'.
7. Create a new file named '1.py' by clicking on new file option.
8. Type the following code in the file:

```
def program 5():
  with open("/workspaces/python/test-project/merge.txt", "r") as f1:
      data = f1.readlines()


   cnt_lines = 0
   cnt_A = 0
   cnt_B = 0
   cnt_C = 0


  for line in data:
      cnt_lines += 1
```

```
        if line[0] == 'A':
            cnt_A += 1
        elif line[0] == 'B':
            cnt_B += 1
        elif line[0] == 'C':
            cnt_C += 1

    print("Total number of lines:", cnt_lines)
    print("Total number of lines starting with A:", cnt_A)
    print("Total number of lines starting with B:", cnt_B)
    print("Total number of lines starting with C:", cnt_C)

program5()
```

9. Save the file '1.py'

10. Create a file named 'merge.txt' using new file option and enter text.

11. Save the file merge.txt. Copy the path of the file and paste it in the code's open() function.

12. In the console to run the code, type:

```
def program6():
    cnt=0
    word_search = input('Enter the word to search:')
    with open("/workspaces/python/merge1.txt","r") as f1:
        for data in f1:
            words=data.split()
            for word in words:
                if(word==word_search):
                    cnt+=1
    print(word_search,"found",cnt,"times from the file")
    return cnt
cnt1=program6()
with open("/workspaces/python/merge3.txt","w") as f2:
    f2.write(str(cnt1))
```

16. Save the file '2.py'

17. Create a file named 'merge.txt' using new file option and enter the text.

18. Save the file 'merge.txt' Copy the path of the file and paste it in the open() function.

19. In the console to run the code:

Type, python 2.py

20. The output will be displayed in the console and a new file result.txt is created inside which the output will be written.

RESULT:

Thus , the file handling in codeanywhere is complete.

```
#! usr/bin/bash
Year=`date +%Y`
Month=`date +%m`
Day=`date +%d`
Hour=`date +%H`
Minute=`date +%M`
Second=`date +%S`
Next_Two_days=$(date -d "$Day + 2 days" )
echo `date` >> tea.txt
echo "Current Date is: $Day/$Month/$Year" >> pea.txt
echo "Current Time is: $Hour:$Minute:$Second" >> pea.txt
echo "Day after two days :$Next_Two_days" >>pea.txt
file='pea.txt'
while read line; do
 echo $line
done < $file
~
~
```

```
C:\Users\Lenovo\Desktop\python files>
Sat Jun 21 10:41:54 IST 2024
Current Date is: 21-06-2024
Current Time is: 11:32:45
```

EXPERIMENT 9: UNIX SCRIPTING DEMONSTRATION

AIM :

Demonstrate a procedure to launch virtual machine using Try Stack to execute bash program.

REQUIREMENTS :

Git bash installed.

THEORY:

Virtual box is a general-purpose full virtualizer for x86 hardware, targeted at server → desktop and embedded use. Git bash is an application for Microsoft Windows environments which provides an emulation layer for Git Command line experience. A shell is a terminal application used to interface with OS through written commands.

PROCEDURE :

1. Open the git bash terminal on your system.

2. Type, vi file_name.txt

To open the vi editor

3. The vi editor opens. Type 'i' to open the

editor in Insert mode.

4. Once it is opened in Insert mode,

Type the following code,

```
#!user/bin/bash

Year = `date +%Y`

Month = `date +%m`

Day = 'date + %d'

Hours = 'date + %H'

Minute = 'date + %M'

Second = 'date + %S'

echo 'date' >> book.txt

echo "Current Date is : $Day - $Month - $Year" >> book.txt

echo "Current Time is : $Hour: $Minute : $Second" >> book.txt

file = 'book.txt'

while read line : do
```

```
echo $line
done < $file
```

5. Click 'ESC' on your keyboard and Type,

: wq!

Now the code is saved and you have quit from

vi editor

6. In the git console, type, bash filename.txt, to see the code's output in the git bash console.

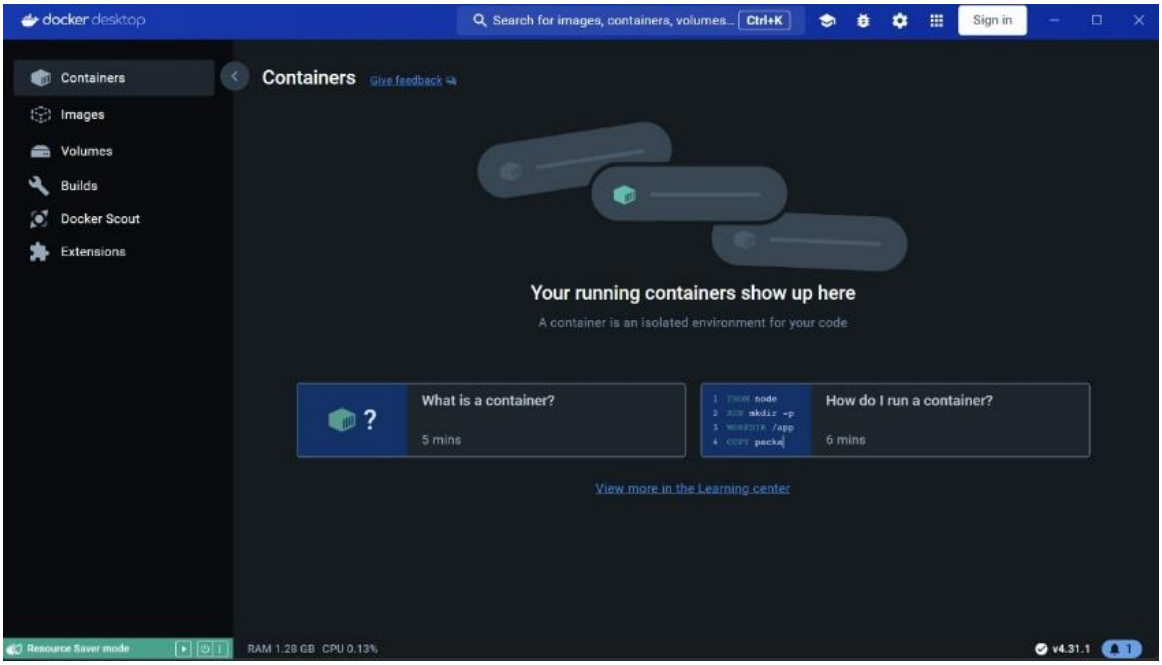
7. Type, cat filename.txt to see the code

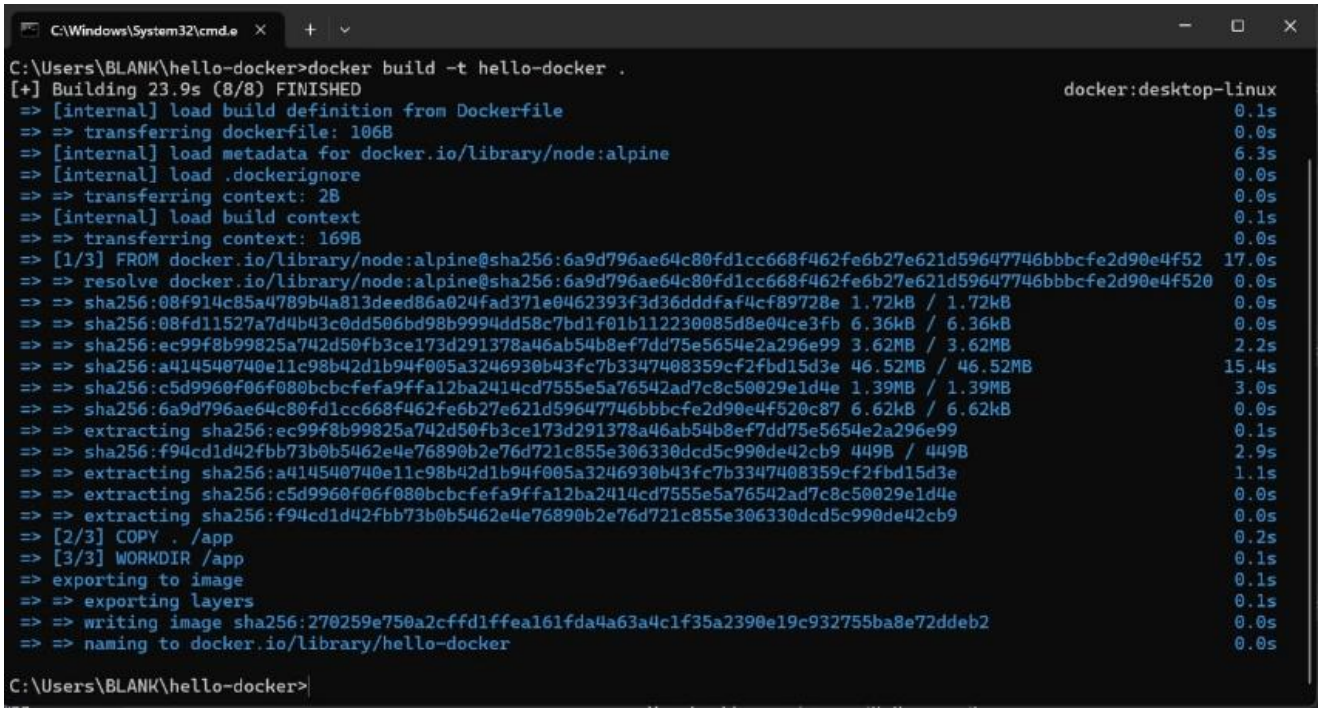
8. Type, cat book.txt, to see the output in the

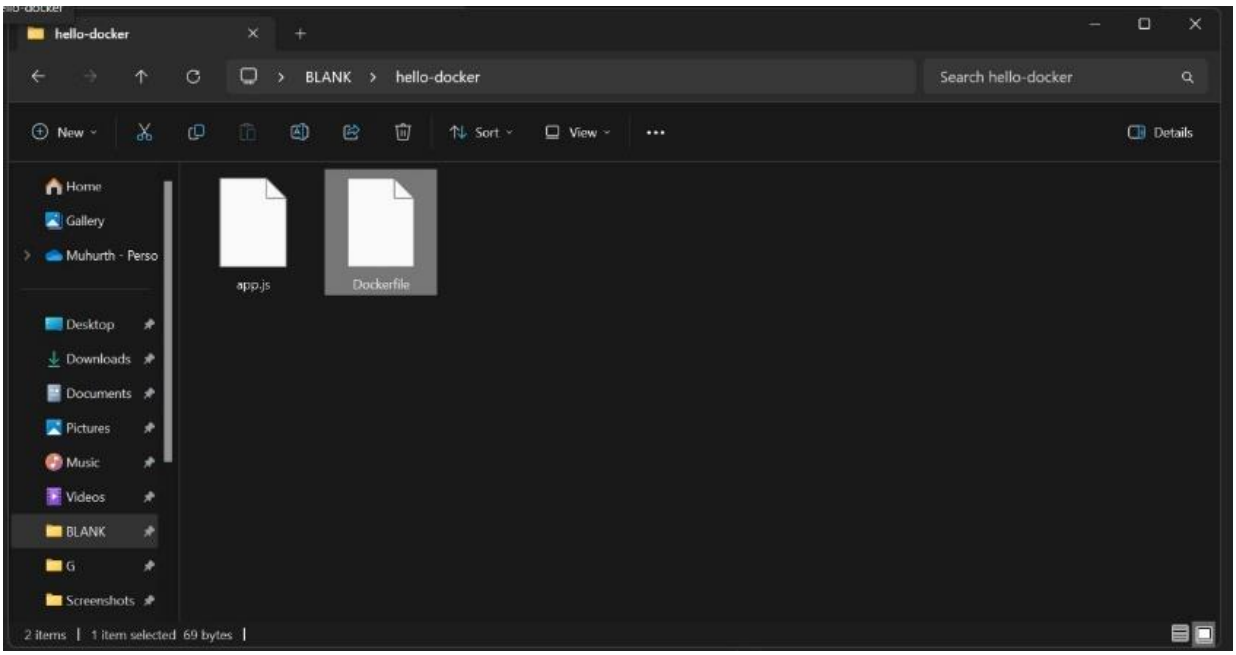
file.

RESULT:

Thus ,using Unix we have demonstrated scripting.


docker desktop
Search for images, containers, volumes... Ctrl+K
Sign in
Containers
Images
Volumes
Builds
Docker Scout
Extensions
Containers
Give feedback
Your running containers show up here
A container is an isolated environment for your code
What is a container?
5 mins
How do I run a container?
6 mins
View more in the Learning center
Resource Saver mode
RAM 1.28 GB CPU 0.13%
v4.31.1


C:\Windows\System32\cmd.e
C:\Users\BLANK\hello-docker>docker build -t hello-docker .
[+] Building 23.9s (8/8) FINISHED docker:desktop-linux
=> [internal] load build definition from Dockerfile 0.1s
=> => transferring dockerfile: 106B 0.0s
=> [internal] load metadata for docker.io/library/node:alpine 6.3s
=> [internal] load .dockerignore 0.0s
=> => transferring context: 2B 0.0s
=> [internal] load build context 0.1s
=> => transferring context: 169B 0.0s
=> [1/3] FROM docker.io/library/node:alpine@sha256:6a9d796ae64c80fd1cc668f462fe6b27e621d59647746bbbcfe2d90e4f52 17.0s
=> => resolve docker.io/library/node:alpine@sha256:6a9d796ae64c80fd1cc668f462fe6b27e621d59647746bbbcfe2d90e4f520 0.0s
=> => sha256:08f914c85a4789b4a813deed86a024fad371e0462393f3d36dddfaf4cf8972 8e 1.72kB / 1.72kB 0.0s
=> => sha256:08fd11527a7d4b43c0dd506bd98b9994dd58c7bd1f01b112230085d8e04ce3fb 6.36kB / 6.36kB 0.0s
=> => sha256:ec99f8b99825a742d50fb3ce173d291378a46ab54b8ef7dd75e5654e2a296e99 3.62MB / 3.62MB 2.2s
=> => sha256:a414540740e11c98b42d1b94f005a3246930b43fc7b3347408359cf2fbd15d3e 46.52MB / 46.52MB 15.4s
=> => sha256:c5d9960f06f080bcbcfefa9ffa12ba2414cd7555e5a76542ad7c8c50029e1d4e 1.39MB / 1.39MB 3.0s
=> => sha256:6a9d796ae64c80fd1cc668f462fe6b27e621d59647746bbbcfe2d90e4f520c87 6.62kB / 6.62kB 0.0s
=> => extracting sha256:ec99f8b99825a742d50fb3ce173d291378a46ab54b8ef7dd75e5654e2a296e99 0.1s
=> => sha256:f94cd1d42fbb73b0b5462e4e76890b2e76d721c855e306330dcd5c990de42cb9 449B / 449B 2.9s
=> => extracting sha256:a414540740e11c98b42d1b94f005a3246930b43fc7b3347408359cf2fbd15d3e 1.1s
=> => extracting sha256:c5d9960f06f080bcbcfefa9ffa12ba2414cd7555e5a76542ad7c8c50029e1d4e 0.0s
=> => extracting sha256:f94cd1d42fbb73b0b5462e4e76890b2e76d721c855e306330dcd5c990de42cb9 0.0s
=> [2/3] COPY . /app 0.2s
=> [3/3] WORKDIR /app 0.1s
=> exporting to image 0.1s
=> => exporting layers 0.1s
=> => writing image sha256:270259e750a2cffd1ffea161fda4a63a4c1f35a2390e19c932755ba8e72ddeb2 0.0s
=> => naming to docker.io/library/hello-docker 0.0s
C:\Users\BLANK\hello-docker>


hello-docker
BLANK > hello-docker
Search hello-docker
New
Sort
View
Details
Home
Gallery
Muhurth - Perso
Desktop
Downloads
Documents
Pictures
Music
Videos
BLANK
G
Screenshots
app.js
Dockerfile
2 items | 1 item selected 69 bytes

EXPERIMENT 10: DOCKER PROBLEM

AIM:

Demonstrate the working of Docker Containers to build a custom app using open source - Play with Docker (PLOD).

REQUIRMENTS:

Internet Connection ,Node.js ,Docker Desktop for windows.

THEORY:

Docker is an open-source platform that allows developers to automate the deployment, scaling, and management of applications using containerization. Containers are lightweight, standalone, and executable software packages that include everything needed to run a piece of software, including the code, runtime, libraries, and system tools. Docker containers are portable and ensure that the application runs consistently regardless of the environment.Play with Docker (PWoD) is an online, interactive playground that allows users to experiment with Docker in a browser-based environment. It provides a sandbox environment where you can create, run, and manage Docker containers without needing to install Docker locally.

PROCEDURE :

1. Install nodejs form node.js.org

2. Go to docs.docker.com

3. Click 'Download and Install'

4. Select 'Docker Desktop for Windows'

5. Check if docker is installed by running the following command in command prompt

docker version'.

6. Create the new folder locally

7. Create app.js file in the created folder

8. In the app.js file, insert the following code,

'Consle.log('Hello world!')

9. Open command prompt in the current folder and enter, 'node app.js'

10 Check if the output is 'Hello World!'

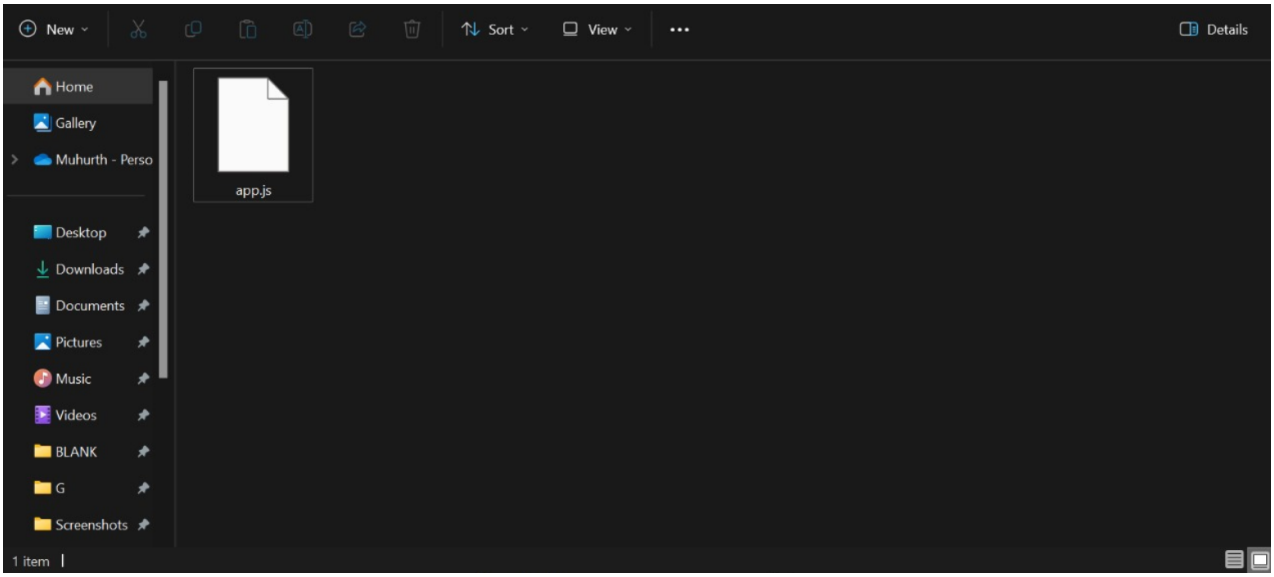
11. Now create a new file in the same directory called 'Dockerfile' .Note that there is no extension for this file.

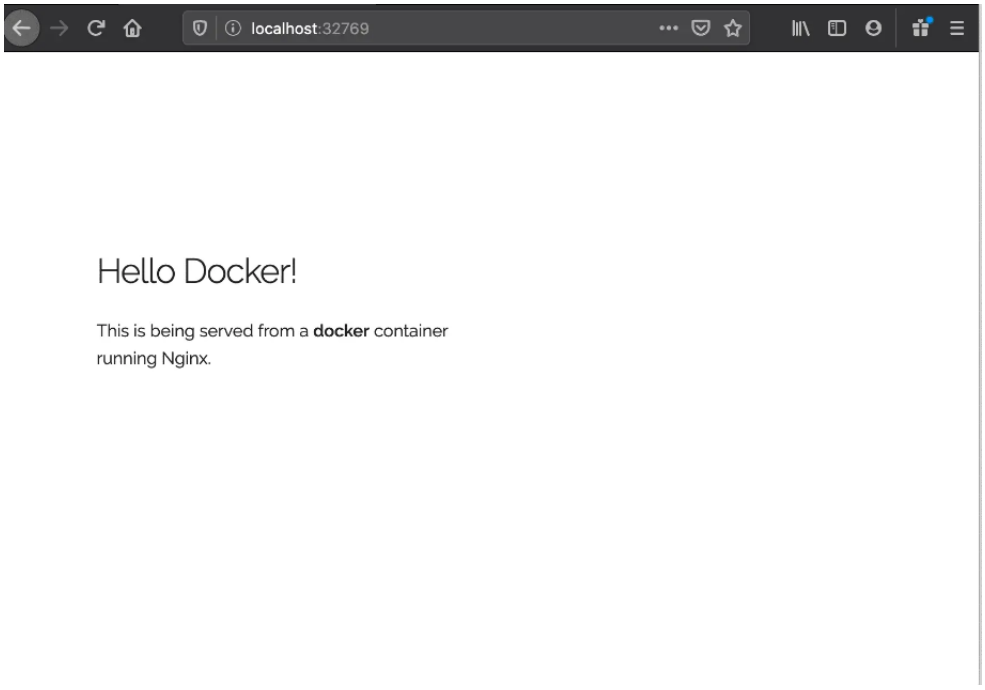
12. In the Dockerfile, enter the following commands;

FROM node: alpine

COPY /app

```
C:\Windows\System32\cmd.e
=> [internal] load build context                                                                    0.1s
=> => transferring context: 169B                                                                    0.0s
=> [1/3] FROM docker.io/library/node:alpine@sha256:6a9d796ae64c80fd1cc668f462fe6b27e621d59647746bbbcfe2d90e4f52  17.0s
=> => resolve docker.io/library/node:alpine@sha256:6a9d796ae64c80fd1cc668f462fe6b27e621d59647746bbbcfe2d90e4f520  0.0s
=> => sha256:08f914c85a4789b4a813deed86a024fad371e0462393f3d36dddfaf4cf89728e 1.72kB / 1.72kB       0.0s
=> => sha256:08fd11527a7d4b43c0dd506bd98b9994dd58c7bd1f01b112230085d8e04ce3fb 6.36kB / 6.36kB       0.0s
=> => sha256:ec99f8b99825a742d50fb3ce173d291378a46ab54b8ef7dd75e5654e2a296e99 3.62MB / 3.62MB       2.2s
=> => sha256:a414540740e11c98b42d1b94f005a3246930b43fc7b3347408359cf2fbd15d3e 46.52MB / 46.52MB    15.4s
=> => sha256:c5d9960f06f080bcbcfefa9ffa12ba2414cd7555e5a76542ad7c8c50029e1d4e 1.39MB / 1.39MB       3.0s
=> => sha256:6a9d796ae64c80fd1cc668f462fe6b27e621d59647746bbbcfe2d90e4f520c87 6.62kB / 6.62kB       0.0s
=> => extracting sha256:ec99f8b99825a742d50fb3ce173d291378a46ab54b8ef7dd75e5654e2a296e99            0.1s
=> => sha256:f94cd1d42fbb73b0b5462e4e76890b2e76d721c855e306330dcd5c990de42cb9 449B / 449B           2.9s
=> => extracting sha256:a414540740e11c98b42d1b94f005a3246930b43fc7b3347408359cf2fbd15d3e            1.1s
=> => extracting sha256:c5d9960f06f080bcbcfefa9ffa12ba2414cd7555e5a76542ad7c8c50029e1d4e            0.0s
=> => extracting sha256:f94cd1d42fbb73b0b5462e4e76890b2e76d721c855e306330dcd5c990de42cb9            0.0s
=> [2/3] COPY . /app                                                                                0.2s
=> [3/3] WORKDIR /app                                                                               0.1s
=> exporting to image                                                                               0.1s
=> => exporting layers                                                                              0.1s
=> => writing image sha256:270259e750a2cffd1ffea161fda4a63a4c1f35a2390e19c932755ba8e72ddeb2         0.0s
=> => naming to docker.io/library/hello-docker                                                      0.0s

C:\Users\BLANK\hello-docker>docker image ls
REPOSITORY     TAG       IMAGE ID       CREATED          SIZE
hello-docker   latest    270259e750a2   19 seconds ago   148MB

C:\Users\BLANK\hello-docker>docker run hello-docker
Hello World!

C:\Users\BLANK\hello-docker>
```





WORKDIR /app

CMD node app.js

13. Save the Dockefile after entering the above commands

14. The dockerfile will be saved in .txt format.To rename the file, do the following

a. Open and in the current directory

b. type `ren Dockerfile .txt Dockerfile`

15. Now, we have to build a docker image. In the current directory, open command prompt and enter the following command

`docker build -t hello-docker`

The " -t " represents that the Dockerfile is in the current directory.

16. After the build is complete end the following command to check whether the image is created

`docker image ls`

You should be the repository name as 'hello-docker'. Type docker run hello-docker

17. Now, we use the following command to run the app.js file from anywhere from our computer. Once you run the above command, you should be able to see the following output:

"Hello World!".

Alternative way to execute online:-

1. Go to "https://labs.play-with-docker.com"

2. Login with github

3. Click on start

4. Click on "Add new Instance"

5. In the terminal of the instance, type the following commands

docker pull codewithmosh/hello-docker

6. Enter the following command to check if the docker image was successfully pulled

docker image ls

You will be able to see the repository name as "codewithmosh/hello-docker"

7. Now, run docker run codewithmosh/hello-docker

8. You will be able to see the output as "Hello World!"

RESULT:

Thus ,Demonstrating the working of Docker Containers to build a custom app using open source - Play with Docker (PLOD) is complete.