

A

Practical Assignment

on

New Age Life Skills - IT Skills lab

Masters of Computer Application - I Sem



RUNGTA INTERNATIONAL SKILLS UNIVERSITY
SESSION: 2025-26

Submitted To: -
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Submitted By: -
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RUNGTA INTERNATIONAL SKILLS
UNIVERSITY, CG
SCHOOL OF INFORMATION TECHNOLOGY

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2.	Create a Career Oriented Presentation with 7 slides using transitions and animations.	29-09-2025	
3.	Create a social media poster for “DIGITAL AWARENESS WEEK” using canva.	01-10-2025	
4.	Compose & send a professional email with an attachment as “you are applying for an internship, send email to HR with your resume attached”.	06-10-2025	
5.	Design a complete Google Form survey and analyze responses. <ul style="list-style-type: none"> a) Create a Google Form titled “Student Attendance Report”. b) Include the following question types: <ul style="list-style-type: none"> a. 5 MCQs b. 1 Rating scale (1–5) c. 1 Short answer d. 1 Checkbox question c) Customize the theme (header image + color). d) Share the form link with 5 friends and collect responses. e) Generate charts from responses and take screenshots of the analysis page. 	11-10-2025	
6.	Demonstrate the creation and management of your digital identity. <ul style="list-style-type: none"> a) Create a social media profile (LinkedIn preferred). b) Add a profile photo, short bio, skills, and education details. c) Create a simple post about “My Learning Journey in Digital Literacy.” d) Change your privacy settings to: <ul style="list-style-type: none"> a. Who can see your posts. b. Who can message you 	31-10-2025	
7.	Using Google Drive or OneDrive: <ul style="list-style-type: none"> a) Create a new folder named “Unit 3 Practical Work”. 	13-11-2025	

	<ul style="list-style-type: none"> b) Upload 3 different files (PDF, image, document). c) Organize them in subfolders: Notes, Images, Assignments. d) Share the main folder with your teacher with View Only permission. 		
8.	<p>Identify one real phishing email : A final-year student, Aman, receives a LinkedIn message saying:</p> <p style="padding-left: 40px;">“You are shortlisted for a Remote Software Developer role at Google. Salary: ₹18 LPA. Pay ₹2,499 as verification fee. Limited seats. Pay now to confirm.”</p> <p><u>ANSWER THE QUESTIONS :-</u></p> <ul style="list-style-type: none"> a) What type of cybercrime is happening here? b) List 3 red flags that show it is a scam? c) What should he do to verify if a job offer is real? 	19-11-2025	
9.	<p>Create a Google Form Quiz with the following requirements:</p> <ul style="list-style-type: none"> a) Convert the form into a Quiz mode with automatic grading. b) Add 5 MCQ questions, each carrying 2 marks. c) Add 1 short answer question that requires manual evaluation. d) Turn ON the setting: <ul style="list-style-type: none"> a. <i>Limit to 1 response</i> b. <i>Shuffle question order</i> c. <i>Release marks after manual review</i> e) Add a timer add-on (like form presenter) and set up a 10-minute time limit. f) Finally, send the quiz link and view the response summary. 	24-11-2025	
10.	<p>Ask ChatGPT OR Google Gemini to generate a 100–120 word paragraph on:</p> <p>“Is online learning better than offline learning for college students?”</p> <ul style="list-style-type: none"> a) Run the AI-generated text through Grammarly and any plagiarism-check tool. 	29-11-2025	

	<ul style="list-style-type: none"> b) Now manually search online to check if similar sentences exist on blogs or articles. c) Identify 2–3 biased statements in the AI answer, such as: <ul style="list-style-type: none"> i. Over-generalizations ii. One-sided opinions iii. Unproven claims d) Rewrite the entire paragraph in a neutral and balanced way, using AI only for grammar suggestions. e) Submit 3 screenshots: <ul style="list-style-type: none"> i. Plagiarism check result ii. Grammarly suggestion page iii. Original AI paragraph vs your rewritten unbiased version 		
11.	<p>To compare AI-generated content with student-created content and understand limitations of AI.</p> <ul style="list-style-type: none"> a) Write a 100–150 word paragraph on the topic: “Will AI replace jobs or change them?” (This must be written by the student.) b) Ask any AI tool (ChatGPT/Gemini/Copilot) to write the same topic. c) In your practical copy, create a Comparison Table with the headings: <ul style="list-style-type: none"> I. Human-Generated Content II. AI-Generated Content 	03-12-2025	
12.	<p>Create a new NotebookLM project titled: “My Chapter Revision Notes.”</p> <ul style="list-style-type: none"> a) Upload multiple sources (any 2) such as: <ul style="list-style-type: none"> i. PDF notes ii. Web articles iii. Text copied into NotebookLM 	10-12-2025	

	<p>b) Ask NotebookLM to:</p> <ol style="list-style-type: none"> Create a combined study guide using all sources. Generate flashcards for quick revision. Create a concept map or explanation of the topic. <p>c) Manually check for:</p> <ol style="list-style-type: none"> Any incorrect facts Repeated information Missing important points <p>d) Attach 3 screenshots from NotebookLM:</p> <ol style="list-style-type: none"> Combined study guide Flashcards Concept map / explanation 		
13.	<p>Create a complete Student Result Management workbook.</p> <ol style="list-style-type: none"> Create a new workbook with 3 sheets renamed as: <ol style="list-style-type: none"> <i>Student_Data</i> <i>Marks_Analysis</i> <i>Charts</i> In <i>Student_Data</i>, enter a list of 15 students with: Name, Roll No, Class, City, Subject1, Subject2, Subject3. Use Flash Fill to split “Full Name” into “First Name” and “Last Name”. Use Find & Replace to replace city name “Delhii” with correct “Delhi”. Use IF function to calculate Pass/Fail (Pass = total \geq 120). Use COUNTIF to find how many students belong to “Delhi”. Use AVERAGE, MAX, MIN to analyze marks in the <i>Marks_Analysis</i> sheet. On the <i>Charts</i> sheet, create: <ol style="list-style-type: none"> A Bar Chart showing marks of any one subject. A Pie Chart showing percentage of pass vs fail. 	19-12-2025	

	<ul style="list-style-type: none"> i) Apply Conditional Formatting to highlight marks < 40 in red. j) Convert the table into a formatted Excel Table. 		
14.	<p>Build a workbook for managing and analyzing sales data of a small store.</p> <ul style="list-style-type: none"> a) Create a workbook with sheets: <ul style="list-style-type: none"> I. <i>Store Sales</i> II. <i>Summary</i> III. <i>Charts</i> b) Import a CSV sales file (or create a sample table) containing: Date, Product, Category, Quantity, Price, Total Sales. c) Use Sort (A→Z, Z→A) to organize products by name and category. d) Apply Filter to view only “Electronics” category. e) Use SUMIF to find total sales for a selected product (e.g., “Headphones”). f) Use LEFT, RIGHT, MID to extract: <ul style="list-style-type: none"> I. First 3 letters of the product name II. Last 2 letters of the category g) Find the highest and lowest sales value using MAX/MIN. h) Prepare a monthly sales summary in the <i>Summary</i> sheet using AVERAGE & SUM. i) Create a Line Chart of month-wise total sales in the <i>Charts</i> sheet. j) Apply sheet protection so data cannot be edited accidentally. 	24-12-2025	
15.	<p>Create a complete personal financial planner workbook.</p> <ul style="list-style-type: none"> a) Create and rename sheets as: <ul style="list-style-type: none"> a. <i>Expenses</i> b. <i>Budget</i> c. <i>Charts</i> b) Enter at least 20 rows of expense data: Date, Category, Expense Detail, Amount, Payment Method. 	29-12-2025	

	<p>c) Use Data Validation dropdown to create a category list (Food, Travel, Fees, Shopping, Other).</p> <p>d) Use Remove Duplicates on the Category column if repeated incorrectly.</p> <p>e) Use SUMIF to calculate total spending for each category.</p> <p>f) In the <i>Budget</i> sheet, create the monthly budget and compare with actual expenses using:</p> <p style="padding-left: 40px;">$\text{Difference} = \text{Budget} - \text{Actual}$ (formula required)</p> <p>g) Highlight expenses above ₹2000 using Conditional Formatting.</p> <p>h) Create:</p> <ol style="list-style-type: none"> i. A Pie Chart showing category-wise spending ii. A Bar Chart comparing <i>Budget vs Actual</i> iii. Use Flash Fill to separate date into Day / Month / Year if needed. Also explain its detail iv. Save worksheet in Page Layout view and adjust print area. 		
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Practical-01

Aim: Design a professional resume using templates.

ASHPREET KAUR

9770894744 | ashpreet110507@gmail.com

Objective

To obtain a challenging data scientist position in a dynamic and innovative organization where I can use my technical and analytical skills.

Education

Rungta International Skills University,
MCA in AI/ML

2025-27

Skills

- Python
- SQL
- Excel
- Numpy
- Pandas
- Power BI
- Attention to detail
- Problem solving
- Communication

Project

Netflix Dashboard

- Cleaned and processed the Netflix dataset using Pandas.
- Loaded cleaned data into MySQL using MySQL Connector.
- Connected MySQL data to Power BI for real-time analysis.
- Performed EDA on content trends and rating patterns.
- Created visualizations using Matplotlib and Seaborn.
- Built an interactive Power BI dashboard for insights.
- Tech Stack: Pandas, MySQL, and Power BI.

Practical-02

Aim: Create a career oriented presentation with 7 slides using transitions and animations.



Strategic Goal Setting



Set SMART Goals

Goals must be Specific, Measurable, Achievable, Relevant, and Time-bound. This framework transforms vague aspirations into actionable targets.



Create a Roadmap

Break down long-term objectives into smaller, manageable milestones. A visual roadmap helps track progress and maintain motivation over time.



Review & Adapt

The job market is dynamic. Regularly review your goals every quarter. Be flexible enough to pivot when new opportunities or challenges arise.

Building Bridges

The Power of Networking

Networking is not just about exchanging business cards; it's about building genuine, mutually beneficial relationships. 85% of jobs are filled through networking.

- Attend industry conferences and local meetups.
- Engage meaningfully on platforms like LinkedIn.
- Seek mentorship from experienced professionals.
- Offer value to your network before asking for favors.



Continuous Learning & Upskilling



Earn Relevant Certifications

Stay competitive by validating your skills with industry-recognized credentials. This demonstrates commitment to your field.



Master New Technologies

Embrace digital transformation. Proficiency in the latest tools and software is often a key differentiator for promotions.



Develop Soft Skills

Technical skills get you the job; soft skills (communication, leadership, emotional intelligence) get you promoted.



Adopt a Growth Mindset

View challenges as opportunities to learn. A willingness to learn is often valued higher than current knowledge.

Cultivating "Brand You"



Your Professional Reputation

Your personal brand is what people say about you when you're not in the room. In today's digital age, your online presence is your new resume.

Key Actions:

- Optimize your social media profiles.
- Share thought leadership content.
- Maintain consistency in your messaging and visual identity.



“
THE ONLY WAY
TO DO GREAT
WORK IS TO
LOVE WHAT
YOU DO.
—Steve Jobs
”

www.distinctiveweb.com

Practical-03

Aim: Create a social media poster for “Digital awareness week” using canva.



Practical-04

Aim: Compose and send a professional email with an attachment as “you are applying for an internship, send email to HR with your resume attached”.

Application for Data Scientist Internship – Resume Attached



Summarise this email



Ashpreet Kaur <ashpreet110507@gmail.com>
to ashkaur2019 ▾

23:51 (5 minutes ago) ☆ 😊 ↩

Dear Hiring Manager,

I am writing to apply for the **Data Scientist Internship** position at your organization. I have a strong interest in data analysis, statistics, and machine learning, and I am eager to apply my academic knowledge and hands-on skills to real-world data problems.

I have worked with tools and technologies such as **Python, Pandas, NumPy, SQL, data visualization, and basic machine learning concepts**, and I am keen to further develop these skills under the guidance of experienced professionals. I am highly motivated, quick to learn, and enthusiastic about contributing meaningfully to your data science team.

Please find my resume attached for your review. I would welcome the opportunity to discuss how my skills and passion for data science align with your organization's goals.

Thank you for your time and consideration. I look forward to your response.

Warm regards,

Ashpreet Kaur

9770894744

ashpreet110507@gmail.com

One attachment • Scanned by Gmail Add to Drive



Practical-05

Aim: Design a complete Google form survey and analyze responses.

- a) Create a google form titled “Student attendance report”.
- b) Include the following question types:
 - 5 MCQs
 - 1 Rating scale (1-5)
 - 1 Short Answer
 - 1 Checkbox question
- c) Customize the theme (header image + color).
- d) Share the form link with 5 friends and collect responses.
- e) Generate charts from responses and take screenshots of the analysis page.

The image shows a Google Form titled "Student attendance report". The form has a purple header bar. Below the title, there is a section for "Form description". The first question is "Student Name *", which is a short answer text field. The second question is "Grade Level *", which is a multiple choice question with four options: Grade 9, Grade 10, Grade 11, and Grade 12. Each option is preceded by a radio button.

Student attendance report

Form description

Student Name *

Short answer text

Grade Level *

☐ Grade 9

☐ Grade 10

☐ Grade 11

☐ Grade 12

Section *

- ☐ Section A
- ☐ Section B
- ☐ Section C
- ☐ Section D

Attendance Status *

- ☐ Present
- ☐ Absent
- ☐ Late
- ☐ Excused

Time of Arrival

- ☐ On Time
- ☐ Late (< 10 mins)
- ☐ Late (> 10 mins)
- ☐ N/A (Absent)

Reason for Absence/Lateness

- ☐ Medical
- ☐ Personal/Family
- ☐ Transportation
- ☐ Other
- ☐ N/A (Present)

Subjects Missed Today

- ☐ Mathematics
- ☐ Science
- ☐ English
- ☐ History
- ☐ Art
- ☐ Physical Education

Student Classroom Behavior/Participation


1 2 3 4 5

Poor ☐ ☐ ☐ ☐ ☐ Excellent

Practical-06

Aim: Demonstrate the creation and management of your digital identity.

- a) Create a social media profile (LinkedIn preferred).
- b) Add a profile photo, short bio, skills, and education details.
- c) Create a simple post about “My learning journey in digital literacy.”
- d) Change your privacy settings to:
 - a. Who can see your posts.
 - b. Who can message you.



The screenshot shows a LinkedIn profile for Ashpreet Kaur. The header features a blue background with a globe and network lines. The profile picture is a circular photo of a woman with glasses. Below the photo, the name 'Ashpreet Kaur' is displayed with a blue verification badge icon and the text 'Add verification badge'. The headline is 'Data Analysis || Data Science Enthusiast'. The location is 'Bhilai, Chhattisgarh, India' and there is a 'Contact info' link. It shows '500+ connections'. At the bottom of the header are four buttons: 'Open to', 'Add profile section', 'Enhance profile', and 'Resources'. Below the header is the 'About' section, which includes a paragraph about being a Data Analyst and a 'Top skills' section listing 'Python (Programming Language)', 'English', and 'SQL'.

Ashpreet Kaur [Add verification badge](#)

Data Analysis || Data Science Enthusiast

Bhilai, Chhattisgarh, India · [Contact info](#)

500+ connections

[Open to](#) [Add profile section](#) [Enhance profile](#) [Resources](#)

About

I am a highly motivated Data Analyst with a strong foundation in data analysis, visualization, and business intelligence. Through continuous learning, I have gained hands-on experience in data cleaning, exploratory data analysis (EDA), and dashboard creation.

I am eager to apply my analytical and problem-solving skills in a professional environment, contribute to data- ...see more

Top skills

Python (Programming Language) • English • SQL

Practical-07


Aim: Using Google Drive or One Drive:

- Create a new folder name “Unit 3 Practical Work”.
- Upload a 3 different files (PDF, Image, document).
- Organize them in subfolders: Notes, Images, Assignments.
- Share the main folder with your teacher with view only permission.

... > Images ▾

✓ ▮




Type ▾ People ▾ Modified ▾ Source ▾

Name ↑	Date modified	
 Poster - Digital Awareness Week (1).png	14 Dec	⋮

... > Unit 3 Practical Work ▾

✓ ▮


Type ▾ People ▾ Modified ▾ Source ▾














Name ↑	Date modified	
 Assignment	20:56	⋮
 Images	20:55	⋮
 Notes	20:55	⋮

... > Notes ▾

✓ ▮

Type ▾ People ▾ Modified ▾ Source ▾

Name ↑	Date modified	
 mca syllabus.pdf	14:39	⋮

Name 	Owner	Date modified	File size	 Sort
 Career Orientation.pdf 	 me	27 Nov 2025 me	1.2 MB	
 Digital Awareness Poster.png 	 me	28 Nov 2025 me	1.3 MB	
 Resume.pdf 	 me	27 Nov 2025 me	113 KB	

Practical-08

Aim: Identify one real phishing email: A final-year student, Aman, receives a LinkedIn message saying:

“You are shortlisted for a Remote Software Developer role at Google.

Salary: 18 LPA

Pay 2,499 as verification fee.

Limited seats. Pay now to confirm.”

Answer the questions:

- a) What type of cybercrime is happening here?
- b) List 3 red flags that show it is a scam?
- c) What should he do to verify if a job offer is real?

a) Type of cybercrime:

This is **Phishing + Job/Recruitment Fraud** (a form of **financial cybercrime and social engineering**).

b) 3 Red flags:

- 1. **Big brand (Google) + unrealistic claim** via a random LinkedIn message, not official hiring process.
- 2. **Asking to pay a “verification fee”** (legit companies never charge for job offers).
- 3. **Urgency/pressure tactic** — “Limited seats, pay now to confirm”.

c) Steps to verify the offer is real:

- 1. Check Google Careers portal for the same role or job ID.
- 2. Verify sender’s LinkedIn profile (official Google employee badge, company email domain, activity history).
- 3. Avoid paying anything — instead, ask for **official documentation** and recruiter’s **@google.com** email.
- 4. Contact Google support or employees through trusted channels to confirm.

Bottom line: No fee. No rush. Always cross-check on the company’s official platform.

Practical-09

Aim: Create a google form quiz with the following requirements:

- a) Convert the form into a quiz mode with automatic grading.
- b) Add 5 MCQ questions, each carrying 2 marks.
- c) Add 1 short answer question that requires manual evaluation.
- d) Turn ON the setting:
 - a. Limit to 1 response.
 - b. Shuffle question order
 - c. Release marks after manual review
- e) Add a timer add-on (like form presenter) and set up a 10-minute time limit
- f) Finally, send the quiz link and view the response summary.

The image shows a Google Form titled "General Tech Quiz (Timed)". The form has a purple header bar. Below the title, there is a section for "Form description" which is currently empty. Below that is an "Email *" field with a "Valid email" label and a "Change settings" link. The form is collecting emails. The first question is "What does 'HTTP' stand for?" with four radio button options: "HyperText Transfer Protocol", "HyperText Transmission Protocol", "High Transfer Text Protocol", and "HyperLink Transfer Platform".

General Tech Quiz (Timed)

Form description

Email *

Valid email

This form is collecting emails. [Change settings](#)

What does "HTTP" stand for?

☐ HyperText Transfer Protocol

☐ HyperText Transmission Protocol

☐ High Transfer Text Protocol

☐ HyperLink Transfer Platform

Which component is considered the "brain" of the computer?

- ☐ CPU
- ☐ RAM
- ☐ Hard Drive
- ☐ Motherboard

What is the binary representation of the decimal number 5?

- ☐ 101
- ☐ 110
- ☐ 111
- ☐ 100

Which of these is an Operating System?

- ☐ Linux
- ☐ HTML
- ☐ Python
- ☐ Intel

What does RAM stand for?

- ☐ Random Access Memory
- ☐ Read Access Memory
- ☐ Run Access Memory
- ☐ Read All Memory

Explain the importance of Cybersecurity in 2 sentences.

Short answer text

Practical-10

Aim: Ask ChatGPT or Google Gemini to generate a 100-120 word paragraph on:

“Is online learning better than offline learning for college students?”

- a) Run the AI-generated text through Grammarly and any plagiarism-check too.
- b) Now manually search online to check if similar sentences exist on blogs or articles.
- c) Identify 2-3 biased statements in the AI answer, such as:
 - i) Over-generalizations
 - ii) One-sided opinions
 - iii) Unproven claims
- d) Rewrite the entire paragraph in neutral and balanced way, using AI only for grammar suggestions.
- e) Submit 3 screenshots:
 - i) Plagiarism check result
 - ii) Grammarly suggestion page
 - iii) Original AI paragraph vs your rewritten unbiased version

While both online and offline learning have special benefits for college students, neither is always "better." Online learning is perfect for self-paced study and skill-based courses because it offers flexibility, affordability, and access to a wide range of global resources. However, it might not have the same advantages as offline learning, such as direct interaction, structured discipline, and practical experience. Through labs, seminars, and mentorship, traditional classrooms promote peer collaboration, real-time discussions, and practical exposure, all of which foster social and professional development. However, strict schedules, travel, and increased expenses may limit offline learning. The ideal strategy is a hybrid model that relies on offline settings for networking, experiential learning, and guided academic support while utilizing online platforms for theory, revisions, and upskilling. By combining the two, students can learn effectively while remaining interested and prepared for the workforce.

Plagiarism Checker

Check Grammar

AI Detector

Pro

Scan Properties

Sources Found0

Words139

Characters1022

View More Details

Plagiarism0%

0% Exact Match

0% Partial Match

Unique100%

While both online and offline learning have special benefits for college students, neither is always "better." Online learning is perfect for self-paced study and skill-based courses because it offers flexibility, affordability, and access to a wide range of global resources. However, it might not have the same advantages as offline learning, such as direct interaction, structured discipline, and practical experience. Through labs, seminars, and mentorship, traditional classrooms promote peer collaboration, real-time discussions, and practical exposure, all of which foster social and professional development. However, strict schedules, travel, and increased expenses may limit offline learning. The ideal strategy is a hybrid model that relies on offline settings for networking, experiential learning, and guided academic support while utilizing online platforms for theory, revisions, and upskilling. By combining the two, students can learn effectively while remaining interested and prepared for the workforce.

Congratulations !

No Plagiarism Found

While both online and offline learning have special benefits for college students, neither is always "better." Online learning is perfect for self-paced study and skill-based courses because it offers flexibility, affordability, and access to a wide range of global resources. However, it might not have the same advantages as offline learning, such as direct interaction, structured discipline, and practical experience. Through labs, seminars, and mentorship, traditional classrooms promote peer collaboration, real-time discussions, and practical exposure, all of which foster social and professional development. However, strict schedules, travel, and increased expenses may limit offline learning. The ideal strategy is a hybrid model that relies on offline settings for networking, experiential learning, and guided academic support while utilizing online platforms for theory, revisions, and upskilling. By combining the two, students can learn effectively while remaining interested and prepared for the workforce.

AI Chat

Hi Shubham, I can help you create the best version of your writing. Get started by adding some text to the doc.

Grammarly Proofreader

Writing quality 96 / 100

2 Clarity

Get tailored suggestions to improve your writing in Grammarly Proofreader.

For college students, online and offline learning both offer unique advantages, but neither is universally "better." Online learning provides flexibility, affordability, and access to diverse global resources, making it ideal for self-paced study and skill-based courses. However, it may lack direct interaction, structured discipline, and hands-on experience, which are strengths of offline learning. Traditional classrooms encourage real-time discussions, peer collaboration, and practical exposure through labs, seminars, and mentorship, enhancing social and professional growth. Yet, offline learning can be limited by rigid schedules, travel, and higher costs. The best approach is a hybrid model—using online platforms for theory, revisions, and upskilling, while relying on offline environments for experiential learning, networking, and guided academic support. Combining both helps students learn efficiently while staying engaged and career-ready.

Practical-11

Aim: To compare AI-generated content with student-created content and understand limitations of AI.

- a) Write a 100-150 word paragraph on the topic:
“Will AI replace jobs or change them?”
(This must be written by the student.)
 - b) Ask any AI tool (ChatGPT/Gemini/Copilot) to write the same topic.
 - c) In your practical copy, create a comparison table with the headings:
 - i) Human-Generated Content
 - ii) AI-Generated Content
- a) Artificial Intelligence is not only a job destroyer but a paradigm shift that reshapes the very fabric of employment. Although the overall impact of AI-driven automation could be job replacement, primarily because of tasks being very repetitive and predictable, its overall application is in jobs being transformed rather than being replaced. AI increases human efficiency through intelligent process automation, analytics, and generative capabilities. The overall function of jobs, right from software development to healthcare, finance, to education, is being transformed into AI-enabled platforms, which overall require human oversight, human optimization, and human decision-making. At the same time, new jobs are being added to AI as a governing structure, AI optimization, human AI interaction, and AI ethics. The overall job market favors a blended skill set, where technical savvy meets human adaptability, human judgment, and human creativity. In other words, AI is less of a replacement of jobs and more of a complementary function to human employment, which requires human strategic thought to make innovations viable.

Artificial Intelligence is not merely a disruptor of employment—it is a transformative force redefining the architecture of work. While automation enabled by AI may displace highly repetitive and predictable tasks, its broader impact lies in job evolution rather than absolute replacement. AI augments human efficiency through intelligent process automation, real-time analytics, and generative capabilities. Roles across domains such as software development, healthcare, finance, and education are transitioning toward AI-assisted frameworks requiring oversight, refinement, and contextual decision-making. Simultaneously, novel professions are surfacing in AI governance, model optimization, human-AI interaction design, and algorithmic ethics. The labor market increasingly rewards hybrid competencies—technical fluency combined with cognitive adaptability, critical reasoning, and creative intelligence. Consequently, AI is less likely to replace jobs at scale but more inclined to reshape them into collaborative human-machine workflows, where strategic human input remains indispensable for sustainable innovation and operational integrity.

c)








Human-Generated Content	AI-Generated Content
Written in simple, natural student language	Uses formal, analytical, machine-like vocabulary
Focuses on emotions, adaptability, and career advice	Focuses on automation, frameworks, and scalability
Less technical, more opinion-based	More structured, data-driven, and <u>concept heavy</u>
May include personal motivation and direct suggestions.	Gives <u>generalized</u> insights, lacks personal voice
Highlights skill-building from a learner perspective	Highlights industry transformations perspective
Limited use of complex terminology	Includes advanced AI-related terminology

Practical-12

Aim: Create a new NotebookLM project titled: “My chapter revision notes.”

- a) Upload multiple sources (any 2) such as:
 - i) PDF Notes
 - ii) Web Articles
 - iii) Text copied into NotebookLM
- b) Ask NotebookLM to:
 - i) Create a combined study guide using all sources.
 - ii) Generated flashcards for quick revision.
 - iii) Create a concept map or explanation of the topic.
- c) Manually check for:
 - i) Any incorrect facts
 - ii) Repeated information
 - iii) Missing important points
- d) Attach 3 screenshots from NotebookLM:
 - i) Combined study guide
 - ii) Flashcards
 - iii) Concept map/explanation

Sources :

Select all sources	✓
 50 Latest Python Interview Questions (Asked in 2025) - UPES Online	✓
 COA Notes For MCA UNIT-1 PDF Computer Data Storage - Scribd	✓
 COMPUTER ORGANIZATION AND ARCHITECTURE - Vardhaman College of Engineering	✓
 Fundamentals of Computer Architecture and its Components - Jaro Education	✓
 MC4167-Python Programming Laboratory Manual - SRM VALLIAMMAI ENGINEERING COLLEGE	✓
 MCA-05 Computer Organization and Architecture Suggested Readings:	✓
 Python Data Structures Question Bank 2022 PDF - Scribd	✓

Study Guide

combine all the study resources and create a brief study guide

Here is a brief study guide combining the Computer Organization & Architecture (COA) notes, Python programming resources, and Data Structure question banks provided in the sources.

Part 1: Computer Organization & Architecture (COA)

1. Basic Structure and Functions

- **Architecture vs. Organization:** Architecture refers to the attributes visible to the programmer (instruction set, data types), while Organization refers to the operational units and hardware interconnections that realize the architecture [1](#) [2](#) .

- **Functional Units:** The five main components are the **Input Unit**, **Memory Unit**, **Arithmetic & Logic Unit (ALU)**, **Output Unit**, and **Control Unit** [3](#) .

- **Bus Structures:** A bus is a communication pathway connecting two or more devices.

- **Types:** Data Bus (bidirectional), Address Bus (unidirectional), and Control Bus [4](#)

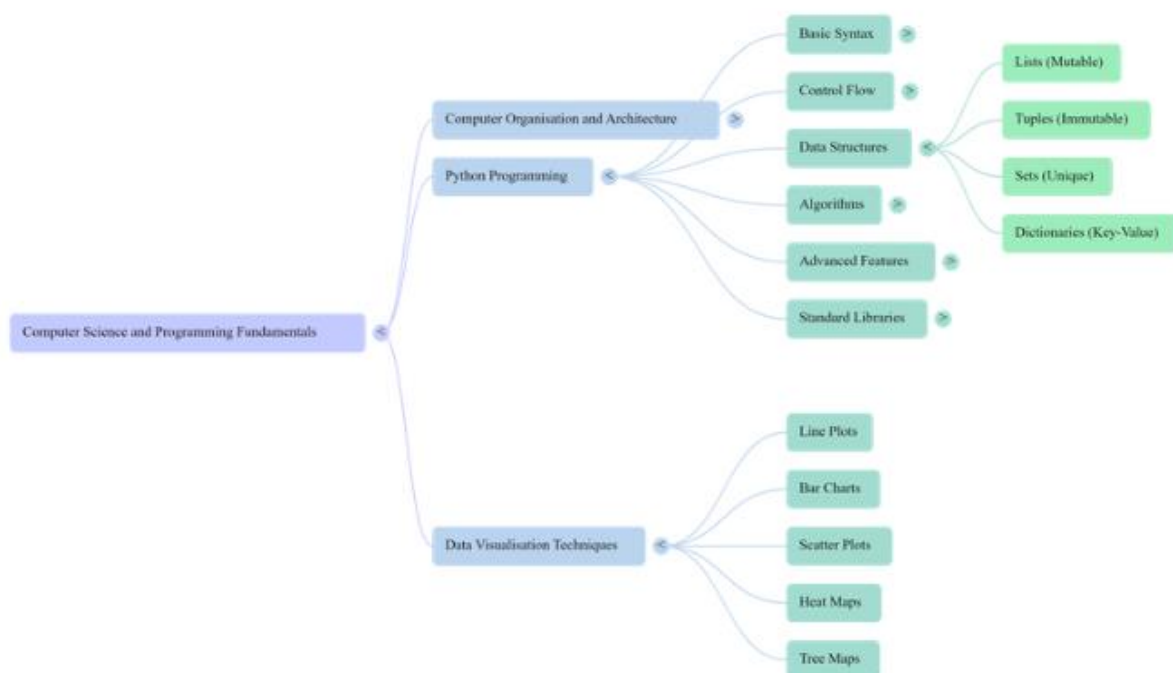
- **Architectures:** Single bus structures are simpler but slower; multiple bus structures

Start typing...

7 sources



Concept map



Practical-13

Aim: Create a complete Student Result Management workbook.

a) Create a new workbook with 3 sheets renamed as:

a. Student_Data

b. Marks_Analysis

c. Charts

b) In Student_Data, enter a list of 15 students with: Name, Roll No, Class, City, Subject1, Subject2, Subject3.

c) Use Flash Fill to split “Full Name” into “First Name” and “Last Name”.

d) Use Find & Replace to replace city name “Delhii” with correct “Delhi”.

e) Use IF function to calculate Pass/Fail (Pass = total \geq 120).

f) Use COUNTIF to find how many students belong to “Delhi”.

g) Use AVERAGE, MAX, MIN to analyze marks in the Marks_Analysis sheet.

h) On the Charts sheet, create:

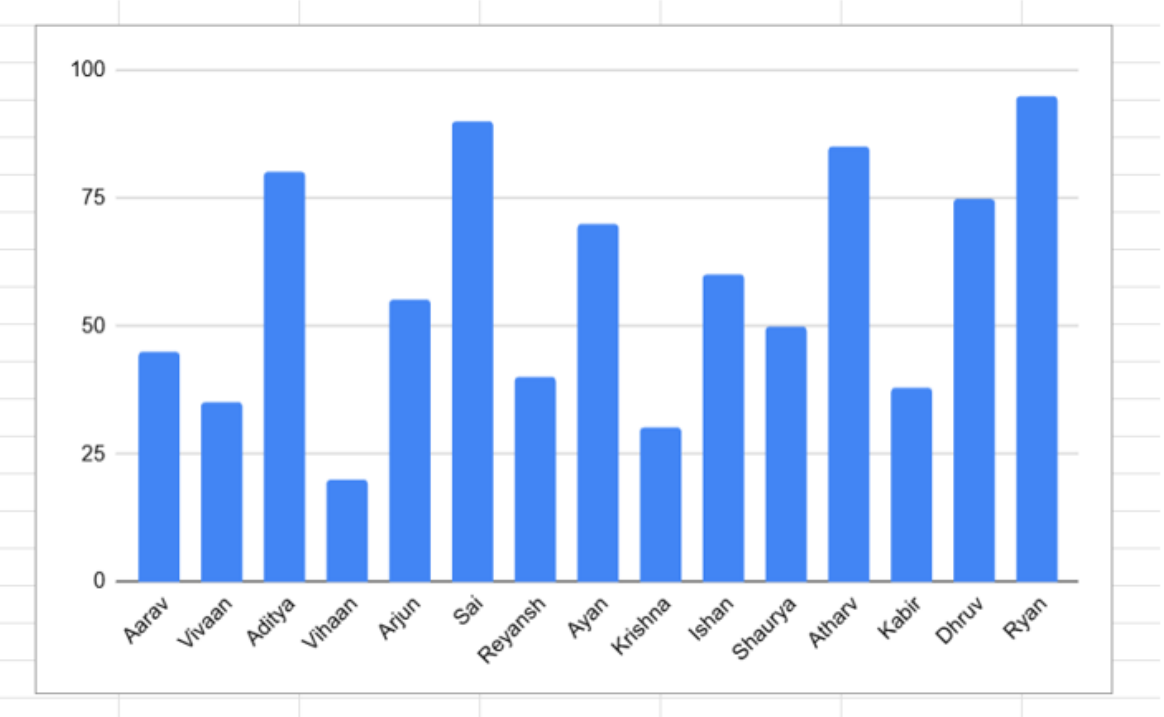
i) A Bar Chart showing marks of any one subject. ii. A Pie Chart showing percentage of pass vs fail.

j) Apply Conditional Formatting to highlight marks < 40 in red.

k) Convert the table into a formatted Excel Table.

A	B	C	D	E	F	G	H	I	J	K
Roll No	First Name	Last Name	Class	City	Subject1	Subject2	Subject3	Result		
101	Aarav	Sharma	10	Delhi	45	50	60	Pass		8
102	Vivaan	Singh	10	Mumbai	35	40	30	Pass		
103	Aditya	Verma	10	Delhi	80	75	85	Pass		
104	Vihaan	Gupta	10	Pune	20	30	25	Pass		
105	Arjun	Kumar	10	Delhi	55	60	65	Pass		
106	Sai	Iyer	10	Chennai	90	92	88	Pass		
107	Reyansh	Das	10	Delhi	40	35	38	Pass		
108	Ayan	Mehta	10	Delhi	70	72	75	Pass		
109	Krishna	Reddy	10	Hyd	30	35	40	Pass		
110	Ishan	Joshi	10	Pune	60	65	70	Pass		
111	Shaurya	Malhotra	10	Delhi	50	55	60	Pass		
112	Atharv	Patil	10	Mumbai	85	80	90	Pass		
113	Kabir	Khan	10	Delhi	38	39	35	Pass		
114	Dhruv	Saxena	10	Delhi	75	70	65	Pass		
115	Ryan	Fernandez	10	Goa	95	90	92	Pass		

A	B	C
Average	Max	Min
57.86666667	95	20



Practical-14

Aim: Build a workbook for managing and analyzing sales data of a small store. a) Create a workbook with sheets:

- I. Store_Sales
- II. Summary
- III. Charts

b) Import a CSV sales file (or create a sample table) containing: Date, Product, Category, Quantity, Price, Total Sales.

c) Use Sort (A→Z, Z→A) to organize products by name and category.

d) Apply Filter to view only “Electronics” category.

e) Use SUMIF to find total sales for a selected product (e.g., “Headphones”).

f) Use LEFT, RIGHT, MID to extract:

I. First 3 letters of the product name

II. Last 2 letters of the category g) Find the highest and lowest sales value using MAX/MIN.

h) Prepare a monthly sales summary in the Summary sheet using AVERAGE & SUM.

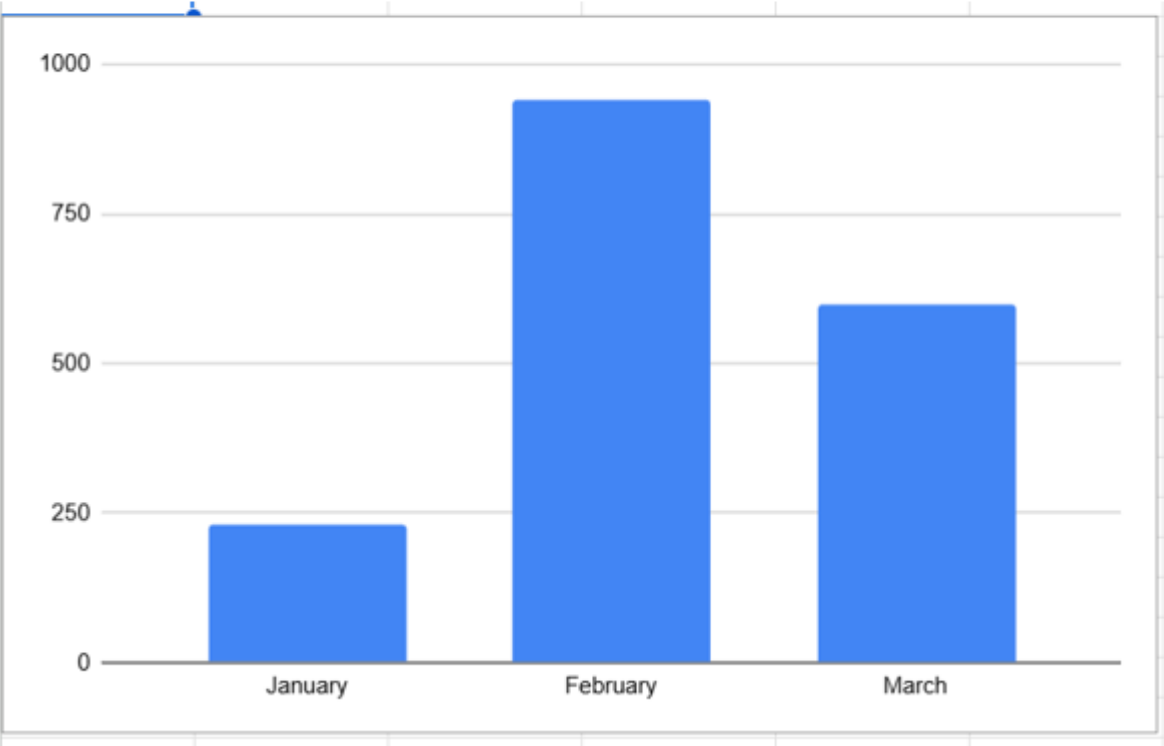
i) Create a Line Chart of month-wise total sales in the Charts sheet.

j) Apply sheet protection so data cannot be edited accidentally.

	A	B	C	D	E	F	G	H
1	Date	Product	Category	Quantity	Price	Total Sales	Short Name	Cat Code
2	1/15/2024	Headphones	Electronics	2	50	100	Hea	cs
3	3/12/2024	Headphones	Electronics	3	50	150	Hea	cs
6	01/05/2024	Keyboard	Electronics	1	30	30	Key	cs
7	2/10/2024	Laptop	Electronics	1	800	800	Lap	cs
8	3/20/2024	Monitor	Electronics	2	150	300	Mon	cs
9	03/05/2024	Mouse	Electronics	10	15	150	Mou	cs
12								

250
800
30

Month	Total Sales	Average Sales
January	230	57.5
February	940	313.33
March	600	200



Practical-15

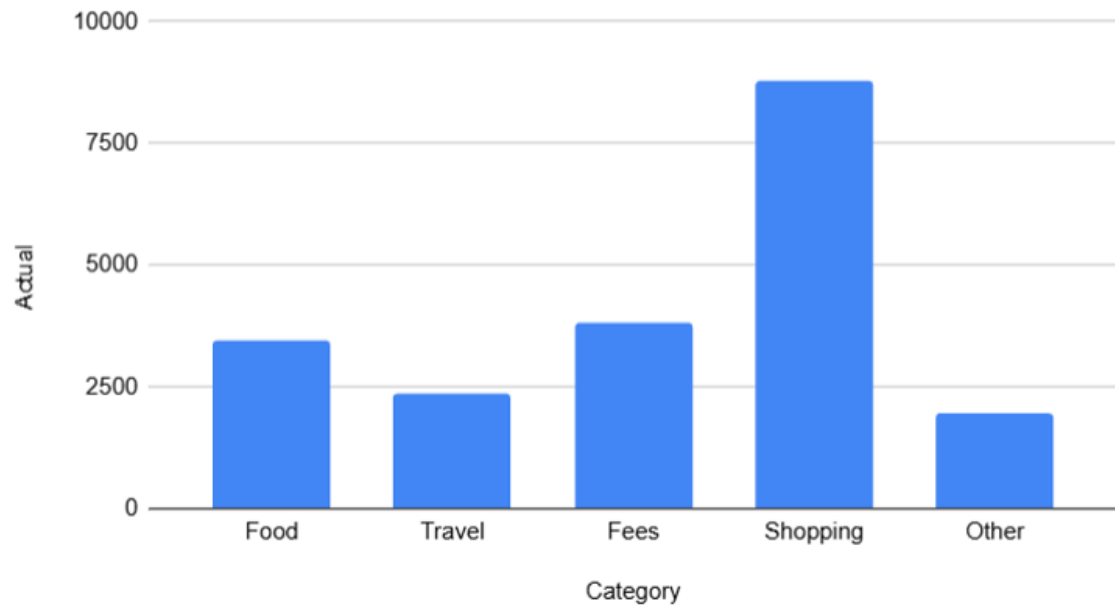
Aim: Create a complete personal financial planner workbook.

- a) Create and rename sheets as: a. Expenses b. Budget c. Charts
- b) Enter at least 20 rows of expense data: Date, Category, Expense Detail, Amount, Payment Method.
- c) Use Data Validation dropdown to create a category list (Food, Travel, Fees, Shopping, Other).
- d) Use Remove Duplicates on the Category column if repeated incorrectly.
- e) Use SUMIF to calculate total spending for each category.
- f) In the Budget sheet, create the monthly budget and compare with actual expenses using: $\text{Difference} = \text{Budget} - \text{Actual}$ (formula required)
- g) Highlight expenses above ₹2000 using Conditional Formatting.
- h) Create:
 - i. A Pie Chart showing category-wise spending
 - ii. A Bar Chart comparing Budget vs Actual
 - iii. Use Flash Fill to separate date into Day / Month / Year if needed. Also explain its detail
 - iv. Save worksheet in Page Layout view and adjust print area.

Date	Category	Expense Detail	Amount	Payment Method	Day	Month	Year
1/1/2024	Food	Groceries	1500	UPI	1	1	2024
1/2/2024	Travel	Uber	300	Card	2	1	2024
1/5/2024	Shopping	Jeans	2500	Cash	5	1	2024
1/6/2024	Food	Burger King	450	UPI	6	1	2024
1/8/2024	Fees	Gym Fee	1200	Card	8	1	2024
1/10/2024	Other	Mobile Recharge	299	UPI	10	1	2024
1/12/2024	Travel	Metro Card	500	Cash	12	1	2024
1/15/2024	Shopping	Shoes	3200	Card	15	1	2024
1/16/2024	Food	Pizza	800	UPI	16	1	2024
1/18/2024	Travel	Bus Ticket	50	Cash	18	1	2024
1/20/2024	Fees	Course Books	2100	UPI	20	1	2024
1/22/2024	Other	Netflix	649	Card	22	1	2024
1/24/2024	Food	Coffee	250	UPI	24	1	2024
1/25/2024	Shopping	T-Shirt	900	Cash	25	1	2024
1/26/2024	Travel	Train Ticket	1500	UPI	26	1	2024
1/27/2024	Food	Fruits	300	Cash	27	1	2024
1/28/2024	Fees	Exam Fee	500	UPI	28	1	2024
1/29/2024	Other	Gift	1000	Cash	29	1	2024
1/30/2024	Shopping	Watch	2200	Card	30	1	2024
1/31/2024	Food	Snacks	150	UPI	31	1	2024

Category	Budget	Actual	Difference
Food	5000	3450	1550
Travel	3000	2350	650
Fees	4000	3800	200
Shopping	5000	8800	-3800
Other	2000	1948	52

Actual vs. Category



Actual

