

Activity 1: Matching

Match each term (1–8) with its definition (a–h). Write the letter in the Answer column.

Term	Definition
1. frontend	_____ a. A visual method to manage work with cards on a board.
2. firewall	_____ b. The part of an application that works on the server.
3. prompt	_____ c. The first look at the data, using statistics and graphs.
4. Kanban	_____ d. The part of an application that the user sees and uses in the browser.
5. scalability	_____ e. A digital record of transactions stored in linked blocks.
6. blockchain	_____ f. The instruction or question that you write for an AI model.
7. EDA	_____ g. A tool that controls network traffic and blocks connections that are not allowed.
8. backend	_____ h. The ability of a system to work well with more users or more data.

Activity 2: Gap filling

Complete each sentence with a term from the box. Use each term once.

encryption · framework · Scrum · microservices · IoT · testing · predictive model · neural network

- Django is a _____ that helps developers build Python backends faster.
- Our team uses _____; we work in sprints and have a short meeting every day.
- _____ changes data into a secret code, so only people with the key can read it.
- A _____ has layers of connected nodes that learn patterns in data.
- The application uses _____; many small, independent services that communicate through APIs.
- The company uses a _____ to predict next month's sales from past data.
- A smart watch that sends your heart rate to the internet is an example of _____.
- Before the release, _____ checks that the software works correctly.

Activity 3: True or false

Read each sentence. Write T (true) or F (false).

Sentence	T / F
1. The frontend is the part of an application that works on the server.	
2. A REST API lets two programs talk over the internet.	
3. Authentication means checking who you are.	
4. Low coupling is bad for a software design.	
5. Deep learning uses neural networks with many layers.	
6. In Kanban, tasks are cards on a board with columns.	
7. Edge computing processes data in a data center far away.	
8. A vulnerability is a strong point in a system.	

Activity 4: Categorization

Write each term from the box under the correct subject. Each subject has two terms.

firewall · LLM · data pipeline · edge computing · authentication · deep learning · data visualization · blockchain

System Security	Artificial Intelligence	Data Science	Emerging Technologies
1.	3.	5.	7.
2.	4.	6.	8.

Activity 5: Multiple choice

Circle the correct answer: a, b, or c.

Question	A	B	C
1. Which term means the steps to make software: plan, design, build, test, deploy, and maintain?	EDA	LLM	SDLC
2. The work of finding, writing, and checking what the software must do is called...	requirements engineering	testing	data visualization
3. Which technology creates new content, such as text, images, or code?	IoT	generative AI	EDA
4. A tested solution that you can reuse for a common design problem is a...	design pattern	data pipeline	prompt
5. What is ML?	a visual method to manage work	a part of AI where computers learn from data	a tool that blocks connections
6. Which term means showing data with charts, graphs, or maps?	data pipeline	encryption	data visualization
7. Which of these is a weak point in a system that an attacker can use?	vulnerability	scalability	coupling
8. React is a framework for the...	backend	frontend	firewall

Activity 6: Error correction

The word in **bold** is wrong in each sentence. Write the correct word.

Sentence	Correct word
1. The frontend manages the data, the rules, and the database.	
2. In Kanban , the team works in sprints and has a short meeting every day.	
3. Authentication changes data into a secret code.	
4. An LLM is a very big AI model trained with a lot of images .	
5. High coupling is good for a software design.	
6. A data pipeline is a series of manual steps that move data from one place to another.	
7. IoT means Internet of Tools .	
8. An acceptance test checks one small piece of code.	

Activity 7: Odd one out

In each group, one word does not belong with the other three. Write it in the last column. (8 points)

Group	Odd one out
1. encryption · firewall · authentication · Kanban	
2. ML · deep learning · neural network · blockchain	
3. Scrum · SDLC · IoT · testing	
4. frontend · backend · REST API · EDA	
5. data pipeline · coupling · data visualization · predictive model	
6. microservices · scalability · design pattern · prompt	
7. React · Django · Spring · SOLID	
8. unit · integration · acceptance · encryption	