

CS211 Quiz 4

Quiz Questions

1. (T/F) Artifacts usually allow the user to see a preview or rendered version of documents like HTML pages.
2. Which of the following best describes how artifacts maintain history?
 - A) They delete old versions automatically
 - B) They use version numbers to track changes
 - C) They save to a separate backup file
 - D) They don't maintain any history
3. What type of tag surrounds artifact content in an LLM's response?
 - A) HTML tags like `<div>`
 - B) Markdown code blocks
 - C) XML-style tags like `<artifact>`
4. (T/F) Users can edit artifacts and send the changes back to the LLM.
5. (T/F) Each column in a pandas dataframe must contain values of the same data type.
6. Which of the following is NOT a common data type found in dataframe columns?
 - A) Integer
 - B) String
 - C) Float
 - D) Dictionary
7. (T/F) Vibe coding eliminates the need to understand the code that is generated.
8. (T/F) When vibe coding, you should refine your prompts iteratively based on the output you receive.
9. Which of the following is NOT a characteristic of vibe coding?

- A) Using natural language to describe what you want
 - B) Iterating on prompts to refine results
 - C) Writing every line of code manually
 - D) Leveraging AI assistants to generate code
10. Google Stitch is primarily designed for:
- A) Database management
 - B) UI design and frontend code generation
 - C) Backend server development
 - D) Machine learning model training
11. (T/F) Stitch generates fully functional backend APIs and database schemas.
12. Which export format does Stitch support for the UI designs it creates?
- A) Python and Java
 - B) HTML and CSS
 - C) SQL and JSON
 - D) Swift and Kotlin only
13. What is one limitation of using Stitch alone for building a complete web application?
14. (T/F) MCP (Model Context Protocol) allows LLMs to access external tools and data sources.
15. What is the role of an MCP server?
16. Describe what happens when an LLM needs information from an external source using MCP.
17. In the MCP architecture, tools are defined by:
- A) The user during the conversation
 - B) The MCP server in its configuration
 - C) The LLM automatically
 - D) The operating system
18. (T/F) Dolt is a type of version control for data.
19. What happens when you run a SQL query on a Dolt database?
- A) The changes are immediately permanent
 - B) The changes are committed to a branch first
 - C) A backup is automatically created
 - D) The original data is deleted
20. When having an LLM create a database for you, you should:

- A) Ask for tables one at a time in separate conversations
 - B) Provide context about all related tables and their relationships
 - C) Avoid mentioning foreign keys
 - D) Only use auto-generated column names
21. Branches in Dolt are useful for:
- A) Testing changes without affecting the main data
 - B) Allowing multiple people to work on data simultaneously
 - C) Creating isolated environments for LLM data manipulation
 - D) All of the above
22. After an LLM makes changes on a Dolt branch, you should:
- A) Immediately merge without reviewing
 - B) Review and verify the changes then merge to main branch
 - C) Delete the branch automatically
 - D) Export to a different database
23. (T/F) A table can have multiple primary keys.
24. (T/F) Primary keys must contain unique values for each row.
25. In a Customers table with columns: customer_id, first_name, last_name, email - which columns could be primary keys (circle all correct answers)?
- A) first_name
 - B) email
 - C) customer_id
 - D) last_name
26. Foreign keys help maintain:
- A) Data speed
 - B) Relationships between tables
 - C) File compression
 - D) User authentication
27. Consider these two tables:
- Departments: dept_id (PK), dept_name, location Employees: emp_id (PK), name, dept_id, salary
- Which statement is correct about dept_id?
- A) dept_id in Employees is a primary key
 - B) dept_id in Departments is a foreign key

- C) dept_id in Employees is a foreign key referencing Departments
 - D) There is no relationship between the tables
28. When using Dolt with an LLM, version control helps you:
- A) Speed up queries
 - B) Undo mistakes the LLM might make
 - C) Reduce storage costs
 - D) Avoid writing SQL
29. What makes Dolt different from a regular Git repository?
- A) It only works on Windows
 - B) It stores data instead of code
 - C) It doesn't support branching
 - D) It can't be accessed online
30. Before merging LLM-generated SQL changes into the main branch, you should:
- A) Run the changes immediately without testing
 - B) Review the SQL statements and verify they match your intent
 - C) Delete the original data first
 - D) Disable version control
31. What is a key advantage of using AI tools for rapid prototyping?
- A) The code is always perfect and needs no review
 - B) You can quickly test ideas and iterate on designs
 - C) It eliminates the need to understand requirements
 - D) It replaces all manual coding permanently