You have a captain's log due before 2024-04-21 (in 1 day)! Log it now!
(/captain_logs/5596018/edit)

Evaluation quiz correction

Evaluation Quiz: Evaluation #6

Date: 2024-01-30

Status: Done

Duration: 13 minutes

Score: 95.0%

 # "I don't know": 0

 # Success: 19

 # Fail: 1

Responses

0. Which of the following statements about what is causing the error is true? (select all valid answers)

The following code gives this incorrect output

```
carrie@ubuntu:/debugging$ cat main.c
#include <stdio.h>

/**
 * main - debugging example
 * Return: 0
 */
int main(void)
{
        int i;
        int j;

        for (i = 0; i < 10; i++)
        {
                j = 0;
                while (j < 10)
                {
                        printf("%d", j);
                }
                printf("\n");
        }

        return (0);
}
carrie@ubuntu:/debugging$

carrie@ubuntu:/debugging$ gcc -Wall -Werror -Wextra -pedantic main.c
carrie@ubuntu:/debugging$ ./a.out
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000000
<...>
^Ccarrie@ubuntu:/debugging$
```

Which of the following statements about what is causing the error is true?

Score: 0.0

- [ ] `j` is always equal to `i` so the loop will never end
- [x] **`j` never increments so it will always be less than `10`**
- [ ] **`j` never increments so it is always going to print `0`**
- [ ] I don't know

1. An object-relational mapper (ORM) . . .

Please select all valid answers

(/)

Score: 1.0

- [x] **is a code library that automates the transfer of data stored in relational databases tables into objects**
- [x] **provides a high-level abstraction upon a relational database**
- [x] **allows a developer to write Python code instead of SQL**
- [ ] I don't know

2. In the context of web infrastrucutre, what is SPOF?

Score: 1.0

- [x] **"Single Point of Failure" - A part of a system that will stop the entire system if it fails**
- [ ] "Single Point of Failure" - A part of the system designed to fail if other parameters are met
- [ ] "Single Point of Freedom" - When your server is set up to only allow requests from a single specified IP address
- [ ] "Spare Parts Order Form" - A form used to request backup hardware
- [ ] I don't know

3. What is in-order traversal?

Score: 1.0

- [x] **the left subtree is visited first, then the root and later the right sub-tree**
- [ ] the root node is visited first, then the left subtree and finally the right subtree
- [ ] left subtree is visited first, then the right subtree and finally the root node
- [ ] I don't know

4. You will not be able to reconnect to your server via SSH - and will not be able to recover it - if you ever deny port _____

Score: 1.0

- [ ] 80
- [x] **22**
- [ ] 440

- [ ] 12
- [ ] (/)
- [ ] I don't know

5. Given this code:

```
struct point {
   int x;
   int y;
};
struct point my_point = { 3, 7 };
struct point *p = &my_point;
```

To set the member `y` of my variable `my_point` to `98`, I can do (select all valid answers):

Score: 1.0

- [x] **`my_point.y = 98;`**
- [ ] `my_point->y = 98;`
- [ ] `p.y = 98;`
- [x] **`(*p).y = 98;`**
- [x] **`p->y = 98;`**
- [ ] I don't know

6. Which command grants or removes other users' privileges in MySQL?

Score: 1.0

- [x] **GRANT OPTION**
- [ ] SUDO
- [ ] CHANGE OWNER
- [ ] SWITCH
- [ ] I don't know

7. What is a database?

Score: 1.0

- [ ] a collection of text files that are stored so that it can be easily accessed, updated and managed by the local application
- [ ] a collection of information that is stored on a physical server and organized so that it can be easily accessed, updated and managed
- [x] **a collection of information that is stored and organized so that it can be easily accessed, updated and managed**
- [ ] I don't know

8. A firewall can monitor _____ traffic.

Please select all valid answers.

Score: 1.0

- [x] **Incoming**
- [x] **Outgoing**
- [ ] SQL Injections
- [ ] CPU Usage
- [ ] I don't know

9. Which MySQL command enables a user to delete tables or databases?

Score: 1.0

- [x] **DROP**
- [ ] DELETE
- [ ] REMOVE
- [ ] KILL
- [ ] I don't know

10. What do these lines print?

```
class Base():
    """ My base class """

    __nb_instances = 0

    def __init__(self):
        Base.__nb_instances += 1
        self.id = Base.__nb_instances

class User(Base):
    """ My User class """

    def __init__(self):
        super().__init__()
        self.id += 99

u = User()
print(u.id)
```

Score: 1.0

- [ ] 1
- [ ] 99
- [x] **100**
- [ ] I don't know

11. What do these lines print?

```
>>> a = { 'id': 89, 'name': "John", 'projects': [1, 2, 3, 4], 'friends': [ { 'id': 82, 'name':
"Bob" }, { 'id': 83, 'name': "Amy" } ] }
>>> a.get('friends')[-1].get("name")
```

Score: 1.0

- [ ] 89
- [ ] [{'id':82, 'name':"Bob"}, {'id':83, 'name': "Amy"}]
- [x] **'Amy'**
- [ ] 'Bob'
- [ ] Nothing
- [ ] I don't know

12. What line(s) would you replace `# REPLACE THIS LINE` with in the following code?

(/)

```
#!/usr/bin/env python3
"""
Script that lists all State objects from a database
"""
if __name__ == "__main__":
    # Import necessary modules
    from sys import argv
    from sqlalchemy import create_engine
    from sqlalchemy.orm import sessionmaker
    from model_state import State

    # Set variables to input arguments
    username = argv[1]
    password = argv[2]
    db_name = argv[3]

    # Start engine
    engine = create_engine('mysql+mysqldb://{}:{}@localhost/{}'.format(username, password, db_na
me))

    # Create a configured class Session
    Session = sessionmaker(bind=engine)

    # Create a Session instance
    my_session = Session()

    # my_session work
    # REPLACE THIS LINE
    for object in objects:
        print("{}: {}".format(object.id, object.name))

    # Close session
    my_session.close()
```

Score: 1.0

- [x] **objects = my_session.query(State).order_by(State.id).all()**
- [ ] my_session.execute("SELECT states.id, states.name FROM states ORDER BY id ASC")

objects = my_session.fetchall()

- [ ] objects = my_session.find(State).order_by(State.id).all()
- [ ] I don't know

13. What is the size of `*p` in this code?

```
int **p;
```
(/)

Score: 1.0

- [ ] 4 bytes
- [x] **8 bytes**
- [ ] 16 bytes
- [ ] 32 bytes
- [ ] I don't know

14. What is TCP/IP?

Score: 1.0

- [x] **Transmission Control Protocol/Internet Protocol, is a suite of communications protocols used to interconnect network devices on the Internet or any private network.**
- [ ] Transmission Control Protocol/Internet Protocol, is a suite of communications protocols used to interconnect network devices on the Internet.
- [ ] Transmission Control Protocol/Internet Protocol, is a suite of communications protocols used to interconnect network devices on private network.
- [ ] I don't know

15. Which command should I use to display the exit code of the previous command?

Score: 1.0

- [ ] `echo ?`
- [ ] `echo $EXITCODE`
- [ ] `echo $CODE`
- [x] **`echo $?`**
- [ ] I don't know

16. In this following code, what is `__password` ?

```
class User:
    id = 89
    name = "no name"
    __password = None

    def __init__(self, new_name=None):
        self.is_new = True
        if new_name is not None:
            self.name = new_name
```

Score: 1.0

- [x] **A private class attribute**
- [ ] A private instance attribute
- [ ] A protected instance attribute
- [ ] A protected class attribute
- [ ] A public instance attribute
- [ ] A public class attribute
- [ ] I don't know

17. What is a server?

Score: 1.0

- [x] **A server is a device, a virtual device or computer program or providing functionality for other programs or devices, called “clients”.**
- [ ] A server is a software that serves web pages.
- [ ] A server is returning information to other computers when asked.
- [ ] I don't know

18. Based on this code, what should all the test cases be?

```
def uniq(list):
    """ Returns unique values of a list """
    u_list = []
    for item in list:
        if item not in u_list:
            u_list.append(item)
    return u_list
```

Select all valid answers

(/)

Score: 1.0

- [x] **empty list**
- [x] **list with one element (any type)**
- [x] **list with 2 different elements (same type)**
- [x] **list with the same element twice (same type)**
- [x] **list with more than 2 times the same element (same type)**
- [x] **list with multiple types (integer, string, etc...)**
- [x] **not a list argument (ex: passing a dictionary to the method)**
- [ ] I don't know

19. If we were to print the following tree using pre-order traversal, what would you expect the output to be?

Score: 1.0

- [x] **98, 12, 10, 54, 402, 45, 128 ,92, 65**
- [ ] 98, 12, 402, 10, 54, 45, 128, 92, 65
- [ ] 10, 12, 54, 98, 45, 402, 92, 128, 65
- [ ] 10, 54, 12, 45, 92, 65, 128, 402, 98
- [ ] I don't know