**Part 1**

1. Explain the difference between an explicit and implicit transaction?

Implicit transactions have no beginning or end. Explicit transactions have a beginning, end, and the ability to be rolled back (Undone)

1. What is the default transactional behavior of SQL server? IMPLICIT TRANSACTION OR EXPLICIT TRANSATION how does one override that behavior?

Implicit transaction. You switch it by using the command implicit\_transaction off

1. How do you start an implicit transaction in SQL?

The transaction begins as soon as the first DML statement is encountered, so it can be started in a variety of ways.

1. How do you start an explicit transaction in SQL?

To begin, you must use the begin tran statement

1. Describe a scenario for which one would use IMPLICIT TRANSACTIONS)?

When you want to see how data would look in a database before you actually add it.

1. Describe a scenario for explicit transactions in the real-world.

When banks use a statement to execute adding or removing money from one’s account. They could use commit or rollback depending on the situation

1. If you have a stored procedure and the body of that stored procedure executes more than one update statement, should you use a transaction? Why or why not?

Yes because if the body performs more than one update statement, a procedure will allow you to see if it properly executed.

1. As demonstrated from the two colors example, a key benefit of transactions is that they do not allow for intermediate states (for example if one insert works, but the other fails, then they both fail). Explain the importance of not allowing intermediate states.

Multiple updates are capable of being performed in one transaction and a check is performed to make sure this was done correctly

1. If you try to use the two colors procedure you created in the lab to add the colors blue and purple what will happen and why? (What gets inserted, does the transaction succeed?)

Since blue is already in the table, you wouldn’t be able to run the statement. Purle wouldn’t add due to the primary constraint when adding blue.

1. If you try to use the two colors procedure you created in the lab to add the colors pink and teal what will happen and why? (What gets inserted, does the transaction succeed?)

The transaction would execute successfully because both colors are new

**Part 2**

1. What does the create user statement do? Hint: It’s not creating a user….

Allows others to access the database

1. Which types of objects are securable with GRANT and DENY statements?

Tables, procedures, and views

1. Describe a scenario by which you would not want a user reading the table directly but rather using a view instead.

When multiple changes are being made you want to make sure it is executed correctly

1. Describe a scenario by which you would not want a user updating data in the table directly but rather using a stored procedure instead?

Keeping information discreet

1. Write SQL to deny the guest user permissions to delete from the colors table you created in part two.

Revoke delete on colors to guestuser

1. Write SQL to allow the guest user the ability to run an SQL View of your choosing

Grant select on fudgemart\_active\_managers to guest user

1. Write SQL to give the guestuser permissions to insert and read data from the colors table you created in part two.

Grant select, insert on colors to guestuser

1. Write SQL to give the guestuser permissions to execute the p\_add\_two\_colors stored procedure you created in part two.

Grant execute on p\_add\_two\_colors to guestuser