Assignment 8
COSC 3336
Spring 2022

1. Suppose that your database system has failed. Describe the database recovery process and the use of deferred-write and write-through techniques.

When You database system has failed, you need to go back to the last checkpoint.

If there was a transaction after the last checkpoint you need to look at the transaction log and redo any needed transitions.

If there was no transition after last checkpoint, you just need to load the checkpoint and nothing else needs to be done.

If there where transactions after the last checkpoint it will used Write-Through to imideatly update the database, unless the database crashed because of the latest transaction. In this case the database will update using Deferred-Write as to not cause the crash again running the transaction. Deffered-write will only update transaction logs and not the actual database.

2. What does this statement mean: The Web is a stateless system? What implications does a stateless system have for database applications developers?

The Web is a stateless system means that a Website or Web Server dose know the current status of a computer trying to communicate with the server. So the Web uses small interactions between a server and a client. The user will send a request and the server will need to reply to the request sent from the users client, in order to communicate. When you access a website, it is stored temporarily on your computer while viewing so you don't need to keep communicating with he website every second you have the web page pulled up.

This may be convenient for simple web pages. But for more complicated websites this meas that every possible transaction on your website is essentially a different program. Because the user can use the website however they see fit. So you can no have a linear program to a web-page, instead a more dynamic, and separated one inorder to have a fast and efficient website.