**BCDE214 Database Administration Assignment 2 Portfolio**

**Appendix A**

**Backup Policy**

Performing regular database back-ups is a crucial part of any recovery plan. There are many aspects that should be taken into consideration when planning long term backup strategies. It is necessary to choose the backup type and backup location and to plan how frequently to perform the backups.

**Backup Type**

Full

A full backup copies all the parts of the database to create a full copy that can be stored and restored in case of an emergency or relocated to a new pc.

Differential

Copies all parts of the database that have been modified since the last full back.

Transaction log

Copies the actions the database has executed used to roll back or restore the transaction if a failure were to occur and prevents data corruption.

**Best Practice**

Microsoft advises that the best practice for backups in SQL server management studio is a mix of the above three types you should do a full backup once a week, a differential backup once a day and a transaction log every 15 minutes. This way your database can be restored to a specific time before failure with the least amount of data loss possible. (Microsoft, 2021)

Backups should be store somewhere safe if they are stored on a local machine they are at risk if that machine fails. Best practice is to either store backups on external hard drives or in the cloud using OneDrive or Amazon S3 so that they can be restored to any pc.

Microsoft advises best practice for a retention policy is

daily backups one week

weekly backups eight weeks

monthly backups 3 months

Nothing should be kept longer than 3 months

The main advantage of having a retention policy is to make sure we efficiently manage our storage resources, without impacting our database recovery process if something goes wrong. (Microsoft, 2021)

**My Process**

1. Create script for full backup

Text

Description automatically generated

1. Create script for differential backup

A picture containing text

Description automatically generated

1. Create script for transaction log

Graphical user interface, application

Description automatically generated

1. Create a SQL Server Agent Job

Graphical user interface, application

Description automatically generated

1. Added the full backup script to it

Graphical user interface, text, application

Description automatically generated

1. Scheduled it to run weekly

Graphical user interface, application

Description automatically generated

1. Repeated process twice to create daily and every 15 minutes

Text

Description automatically generated

1. Confirmed they work

Graphical user interface, application

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated