1. Why should one use Azure Key Vault when working in the Azure environment? What are the pros and cons? What are the alternatives?

*Centralizing storage of application secrets in Azure Key Vault allows you to control their distribution. Key Vault greatly reduces the chances that secrets may be accidentally leaked. When using Key Vault, application developers no longer need to store security information in their application. Not having to store security information in applications eliminates the need to make this information part of the code. For example, an application may need to connect to a database. Instead of storing the connection string in the app's code, you can store it securely in Key Vault. Your applications can securely access the information they need by using URIs. These URIs allow the applications to retrieve specific versions of a secret. There is no need to write custom code to protect any of the secret information stored in Key Vault.*

*Pros:*

1. *High Level of Security*
2. *"The most valuable feature is that you can retrieve user account details from the cloud."*
3. *"The most valuable features are ease of use and enabling our clients to manage keys."*

*Cons:*

*a.*

1. How do you achieve loop functionality within a Azure Data Factory pipeline? Why would you need to use this functionality in a data pipeline?

*The ForEach Activity defines a repeating control flow in your pipeline. This activity is used to iterate over a collection and executes specified activities in a loop. The loop implementation of this activity is similar to Foreach looping structure in programming languages.*

1. What are expressions in Azure Data Factory? How are they helpful when designing a data pipeline? Please explain with an example.
2. What are the pros and cons of parametrizing a dataset’s activity in Azure Data Factory?
3. What are the different supported file formats and compression codecs in Azure Data Factory? When will you use a Parquet file over an ORC file? Why would you choose an AVRO file format over a Parquet file format?