**SDA ASSIGNMENT#04**

**ID: 19K-0354**

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**SECTION: H**

**QUESTION#02-Part-B:**

The singleton pattern is a software design pattern that restricts the instantiation of a class to one “single” instance. This is useful when exactly one object is needed to coordinate actions across the system. The Singleton pattern disables all other means of creating objects of a class except for the special creation method. This method either creates a new object or returns an existing one if it has already been created. Real world application of singleton would be In a NADRA registration center, the system is using multiple desktop application for keeping records and they want the software developer to design a solution to add the printing feature in all the application they have. Government is another example for understanding singleton class. Every country has a single govt. that is incharge of group of people. For example, if you have a license for only one connection for your databaseor your JDBC driver has trouble with multithreading, the Singleton makes sure that only one connection is made or that only one thread can access the connection at a time. Another example can be of booking cars on a rental website. If concept of singleton pattern is not implemented, one car can have multiple bookings of same day and same time.