1. **Research Methodology**

The study is based on two methods of data collection: primary and secondary. Thus, the extent of reliability and validity of the findings of this study depends on the reliability and validity of these data.

Primary data are information collected by a researcher specifically for a research assignment. In other words, primary data are information that a company must gather because no one has compiled and published the information in a forum accessible to the public.

**Advantages of primary data are as follows:**

- The primary data are original and relevant to the topic of the research study so the degree of accuracy is very high.
- Primary data is that it can be collected from a number of ways like interviews, telephone surveys, focus groups etc. It can be also collected across the national borders through emails and posts. It can include a large population and wide geographical coverage.
- Moreover, primary data is current and it can better give a realistic view to the researcher about the topic under consideration.
- Reliability of primary data is very high because these are collected by the concerned and reliable party.

Secondary data are the data collected by a party not related to the research study but
collected these data for some other purpose and at different time in the past. If the researcher uses these data then these become secondary data for the current users. These may be available in written, typed or in electronic forms. A variety of secondary information sources is available to the researcher gathering data on an industry, potential product applications and the market place. Secondary data is also used to gain initial insight into the research problem. Secondary data is classified in terms of its source – either internal or external. Internal, or in-house data, is secondary information acquired within the organization where research is being carried out. External secondary data is obtained from outside sources. There are various advantages and disadvantages of using secondary data.

**Advantages of Secondary Data:**

Advantages of secondary data are following:

- The primary advantage of secondary data is that it is cheaper and faster to access.
- Secondly, it provides a way to access the work of the best scholars all over the world.
- Thirdly, secondary data gives a frame of mind to the researcher that in which direction he/she should go for the specific research.
- Fourthly secondary data save time, efforts and money and add to the value of the Research.

The first thing which I have planned for is the study of case studies. I can obtain my secondary data from the case studies and hence get to know about the different providers of cloud services. This will help me to know about current implementations of cloud services and their protocols.
What kind of data is using which type of cloud and what is the current demand by the providers or the users. Only through case studies and literature review, I can know better about the methods which are implemented.

A formal data collection process is necessary as it ensures that data gathered is both defined and accurate and that subsequent decisions based on arguments embodied in the findings are valid. The process provides both a baseline from which to measure from and in certain cases a target on what to improve.

Types of data collection

- By mail questionnaires
- By personal interview.

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Although they are often designed for statistical analysis of the responses, this is not always the case.

Questionnaires have advantages over some other types of surveys in that they are cheap, do not require as much effort from the questioner as verbal or telephone surveys, and often have standardized answers that make it simple to compile data. However, such standardized answers may frustrate users. Questionnaires are also sharply limited by the fact that respondents must be able to read the questions and respond to them. Thus, for some demographic groups conducting a survey by questionnaire may not be practical.
An interview is a conversation between two or more people where questions are asked by the interviewer to elicit facts or statements from the interviewee. Interviews are a standard part of journalism and media reporting, but are also employed in many other situations, including qualitative research.

I have planned for collecting my primary data through some interviews and questionnaires, which is called as qualitative research. I believe the developers who are already working on cloud technology can tell better about their needs and preferences. So I will be collecting my primary data by conducting interviews and questionnaires for about 30-40 developers and others who are involved in the process.

Through my primary data I will get to know the challenges or the main parameters required for moving from one database to another database. I will be able to focus on the needs and requirements for my data portability and then decide about the type of cloud which should be used.