1.
   a. A database is a collection of integrated tables that contain information that makes them self-describing, and in the modern day, they are all computerized. https://moodle.wou.edu/mod/resource/view.php?id=590055
   b. A DBMS is computer program that can be used to create, process, and administer a databse. (Taken from textbook)
   c. SQL stands for Structured Query Language and is the programming language for relational databases. It is used to share and manage data that can be accessed through a DBMS. SQL: What Is It? (thebalancecareers.com)
   d. The ER model is used to give someone a conceptual view of a database. It uses real-world entities and associations to give understanding to someone looking at a database. ER Model - Basic Concepts - Tutorialspoint
   e. Relational Algebra is a set of operations that work on relations to acquire the desired data from those relations. https://moodle.wou.edu/mod/resource/view.php?id=590065
   f. Data modeling is the process of creating data models for information systems by using formal techniques. Something like making a UML diagram from a piece of software. Data modeling - Wikipedia
   g. Normalization related to database design is the process of organizing the data from a database by creating tables, and making relationships between them according to rules designed to protect the data and make the database more flexible. It has a focus on eliminating redundancy and inconsistent dependencies. Database normalization description - Office | Microsoft Docs
   h. RDS from Amazon is the Amazon Relational Database Service that they created and offer through the AWS. It is designed to make the setup, scaling, and operation of relational databases easier, and through the AWS cloud. What Is Amazon RDS? | ExitCertified
   i. SQL Azure is a version of SQL designed by Microsoft on the cloud. Instead of needing a physical server, Azure allows you to do everything SQL Server does, but based in the cloud. What is SQL Azure? - Definition from WhatIs.com (techtarget.com)
   j. Snowflake is a DBMS that is cloud based. Though there are many other cloud based DBMS out there, Snowflake is praised for its excellent UI that supports all popular web browsers. Unlike Redshift and Azure, Snowflake doesn't require you to download any client to run. Simply enter the URL, and you can get going. Another praised aspect is how easy it is to get back to work on a previously closed worksheet. It is also very easy to change the role you play on the database, so you can quickly see how a normal, non-admin user sees the thing you are working with. What Makes Snowflake Different from other DBMS as "Cloud-Based" Software? | by Christopher Tao | Medium
   k. MongoDB is a DBMS that stores its data in JSON-like documents instead of the table format used in other DBMS and is classified as a NoSQL program. MongoDB is part of the No SQL movement, otherwise known as a non-relational DBMS. No SQL was popularized by the needs of Web 2.0 companies. They can support SQL query languages despite having a focus on non-relational ideas. The most popular database for modern apps | MongoDB NoSQL - Wikipedia

l.   Hadoop, or Apache Hadoop, is a collection of open-source software utilities that allows multiple computers to work in unison on large problems that requires massive amounts of computation on large amounts of data. Apache Hadoop - Wikipedia

m.   Apache Spark is an open-sources system used with big data workloads. It provides a user with multiple APIs, and supports code reuse across multiple workloads to allow better resource management. What is Apache Spark? | Introduction to Apache Spark and Analytics | AWS (amazon.com)

2. According to a query on Quora, Oracle and AWS are two of the top DBMS systems coming from Oracle and Amazon. Oracle has been around for some time now, and has made a mark in the realm of technology. In the DBMS world, they have begun using Autonomous Databases that are being ran with machine learning, keeping them constantly in the lead. Their database solution is fast, and extremely stable with a big focus on security making it a very desirable choice. In addition to this, Oracle is very focused on keeping their platforms up to date with routine upgrades. For Amazon's AWS, it's the dominant leader in the cloud sector of DBMSs. They offer a wide range of solutions, making their system very versatile. Just like Oracle, Amazon is keeping the entire AWS system up to date, and is improving upon it constantly. According to this article, AWS actually topped IBM in revenue in the database sector. What are the top database vendors? - Quora

3. I would probably choose ORACLE 19C if money wasn't an object. MySQL is open source, so I feel that it would be much easier for the common person to find out any weak points in its security. With the price tag of ORACLE 19c, only the most determined (and probably filthy rich) individual will be trying to get into your system and NASA would want to have a secure system.

4. MySQL 8.0 would be great for a startup. The big reason is that it's free. You don't need to pay the 15K (A rough estimate I saw on a board) for ORACLE, and would still get a great and developing system to work with.

5. As mentioned before, AWS is clearly a dominating cloud based DBMS, and I believe Microsoft Azure is as well. AWS's whats new page stated that they just announced Amazon Cloudwatch Metric Streams. On the Azure announcement page, they just launched new solutions for Oracle WebLogic on Azure Virtual Machines. AWS Free Tier (amazon.com) Create your Azure free account today | Microsoft Azure

6. The NoSQL movement was started by the surge in Web 2.0 companies. These companies focus on user-generated content. They also promote users making accounts to post or comment on articles. Social media sights are great examples of these. An example of this NoSQL DBMS system is Azure Cosmos DB.

7. I'm not sure if I understood this correctly. Two alternatives that I could find were Raima Database Manager (RDM) and Couchbase.