1. **What database models do you know?**
   1. **Hierarchical**
   2. **Network**
   3. **Relational**
   4. **Object-oriented**
2. **Which are the main functions performed by a Relational Database Management System (RDBMS)?**
   1. **Creating / altering / deleting tables and relationships between them (database schema)**
   2. **Adding, changing, deleting, searching and retrieving of data stored in the tables**
   3. **Support for the SQL language**
   4. **Transaction management (optional)**
3. **Define what is "table" in database terms.**
   1. **A table is a collection of related data held in a structured format within a database. It consists of fields (columns), and rows.**
4. **Explain the difference between a primary and a foreign key.**
   1. **Primary is unique key**
   2. **Foreign key is link to other table and can be duplicate**
5. **Explain the different kinds of relationships between tables in relational databases.**
   1. **One to one**
   2. **One to many**
   3. **Many to many**
6. **When is a certain database schema normalized? What are the advantages of normalized databases?**
   1. **Database schema is normalized when there are no duplicating entries in the tables. Duplicates are replace using foreign and primary keys that make the relations**
   2. **Advantage is the easy changing on one place**
7. **What are database integrity constraints and when are they used?**
   1. **They ensure that the data is valid**
   2. **It’s used when you have to check the data format or ensure that no relation between tables is broken or when unique primary key is needed**
8. **Point out the pros and cons of using indexes in a database.**
   1. **Pros – speed up searching**
   2. **Cons – adding or deleting records in indexed tables is slower**
9. **What's the main purpose of the SQL language?**
   1. **To work with relational databases**
10. **What are transactions used for? Give an example.**
    1. **Grouping execution of sequence of queries so if one of them fails none of them is executed**
11. **What is a NoSQL database?**
    1. **Not relational data model**
12. **Explain the classical non-relational data models.**
    1. **Document model – set of documents**
    2. **Key-value model – set of keys and values**
    3. **Hierarchical key-value – Hierarchy of key-value pairs**
    4. **Wide-column model – key-value model with schema**
    5. **Object model – Set of oop style objects**
13. **Give few examples of NoSQL databases and their pros and cons.**
    1. **Example: Mongo DB(mainly used with JS)**
       1. **No scheme , no constraints and no relations**