IST 659- Week 02

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# Questions

1. Does a table consist of data or metadata? Explain.  
   Ans. A table consists of both data and metadata. The rows of the table are the data entries, wherein each instance gives information of the various attributes present in the columns. The columns contain metadata like the labels and the data types.
2. Describe what happens when you attempt to insert 200 characters into a column with a data type of varchar (50)?  
   Ans. Only the first 50 characters of the 200 will be stored in the column.
3. How do we enforce entity integrity over a table which uses a surrogate primary key?  
   Ans. We find a column or a group of columns with a natural key and with the unique key constraint which enforces entity integrity over a table having a surrogate primary key.
4. Provide a screenshot of your completed **customers** table include columns, indexes and foreign keys.   
   A screenshot of a cell phone

   Description automatically generated  
   I am unable to figure out how to enforce price check.
5. Implement the **contractors** table as defined in the overview section. Include columns, indexes (pk/unique) and foreign keys. Provide a screenshot of the table structure screen in Adminer and include the columns, indexes, and foreign keys sections.   
   A screenshot of a social media post

   Description automatically generated
6. Implement the **jobs** table as defined in the overview section. Include columns, indexes (pk/unique) and foreign keys. Provide a screenshot of the table structure screen in Adminer and include the columns, indexes, and foreign keys sections.   
   A screenshot of a cell phone

   Description automatically generated  
   Unable to enforce the valid dates constraint.
7. Add 3 contractors to the **contractors** table and provide a screenshot of the Select data screen as evidence they were added.  
   A screenshot of a cell phone

   Description automatically generated
8. Can you add two contractors with the same email address? Explain.  
   Ans. No, it will show a duplicate key error. Since, the unique key constraint is enforced on the email column in the contractors table, a duplicate entry in the column will throw an error.
9. Can you add a contractor from the state of MA? Explain.  
   Ans. No, it conflicts with the foreign key constraint on the state column in the table. As state MA is not present in the states table and the foreign key is enforced on the state column of the contractors table, it is not possible.