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**4.2 Exercise**

**Computer Systems of Data Science**

1. **Identify 10 data attributes you would capture for each vehicle theft incident. How many bytes should you allow for each attribute?**

* Date Vehicle Stolen – 6 bytes
* Time Vehicle Stolen – 6 bytes
* Location vehicle stolen (Address) – 32 bytes
* VIN # - 16 bytes
* Body type of vehicle stolen – 32 bytes
* Make / Model of vehicle stolen - 32 bytes
* Color of vehicle – 32 bytes
* License Plate / Paper Tag Number & State – 16 bytes
* Title Owner - 48 bytes
* Owner applied identifying Markings – 32 bytes

1. **Which Attribute would you design as the primary key?** 
   1. VIN #

**Critical Thinking Questions**

1. **Should the database include data about the status of the theft investigation? If so, what sort of data needs to be included?**

* Yes, Has the vehicle been recovered and if so current location of vehicle.

1. **Can you foresee any problems with keeping the data current? Explain.**

There could be a potential issue with keeping the data current if the system is not updated in real-time with current investigation statuses. There could also be issues if the data coming in exceeds the thresholds defined in the db schema for a given field (i.e. the data exceeds the byte limit)