

CS105 Lab 1:
Getting Settled
And
Database Fundamentals

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Lab 1 Objectives

- Get familiar with Piazza and WebSubmit
- Quick review of databases
- Work on some discussion problems

Lab 0

- Were there any issues with Lab 0?
- Make sure that you've:
 - Purchased the coursepack
 - Set up your CS account
 - Reviewed the Course Policies
 - Completed the student survey

Piazza

- Piazza is a place to ask and answer questions
 - You can post anonymously
 - You can decide if the whole class sees your post, or just the instructors
- Please just don't share too much information
- Sign up during lab if you haven't already

WebSubmit

- [This](#) is where you'll be submitting your homework
- Quick exercise in the lab just to get familiar with submission
- If you have any technical issues with WebSubmit please email: `cs105-staff@cs.bu.edu`
- Not set up yet, should be soon!

Review - Terms

VIN	Make	Model
12345678	Ford	Mustang
87654321	Honda	Civic
11223344	Toyota	Corolla
44332211	Ford	Focus

} Row / Tuple

Column / Attribute

Table / Relation

What is the schema for this table?

- Car(VIN, Make, Model)

What would a good primary key be?

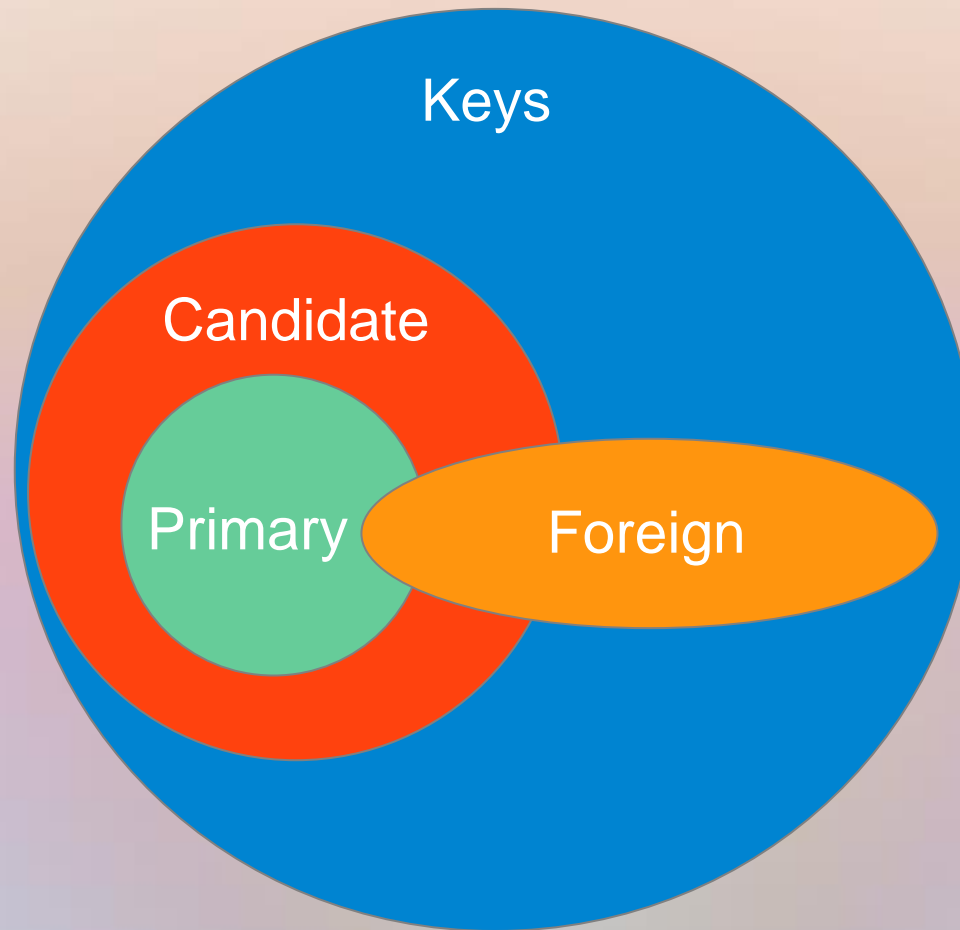
- VIN

Why?

Review - Keys

- Key – one or more attributes (columns) that can be used to uniquely identify a row in a relation (table)
 - Candidate – a minimal key
 - Primary – a candidate key chosen for a specific table
 - Foreign - the primary key of another table

Review - Keys



Relation Requirements

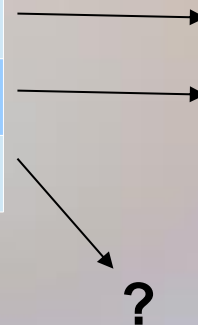
- Uniqueness – no two rows may have the same value for a primary key

VIN	Make	Model
123456	Ford	Mustang
123456	Honda	Civic

- Referential Integrity – All foreign keys must point to a valid primary key

Student ID	Name	Adviser ID
123456	Adam	11111
654987	Beth	22222
987654	Carl	77777

Adviser ID	Name
11111	Larry
22222	Mark
33333	Nancy



This Lab

- You can find the lab on my website:
 - cs-people.bu.edu/bborucki/labs_105.html
- Partner up and work on the lab
- Make sure your name gets on the attendance sheet
- Let me know if you have any questions!
- I'll be posting solutions in a couple days