

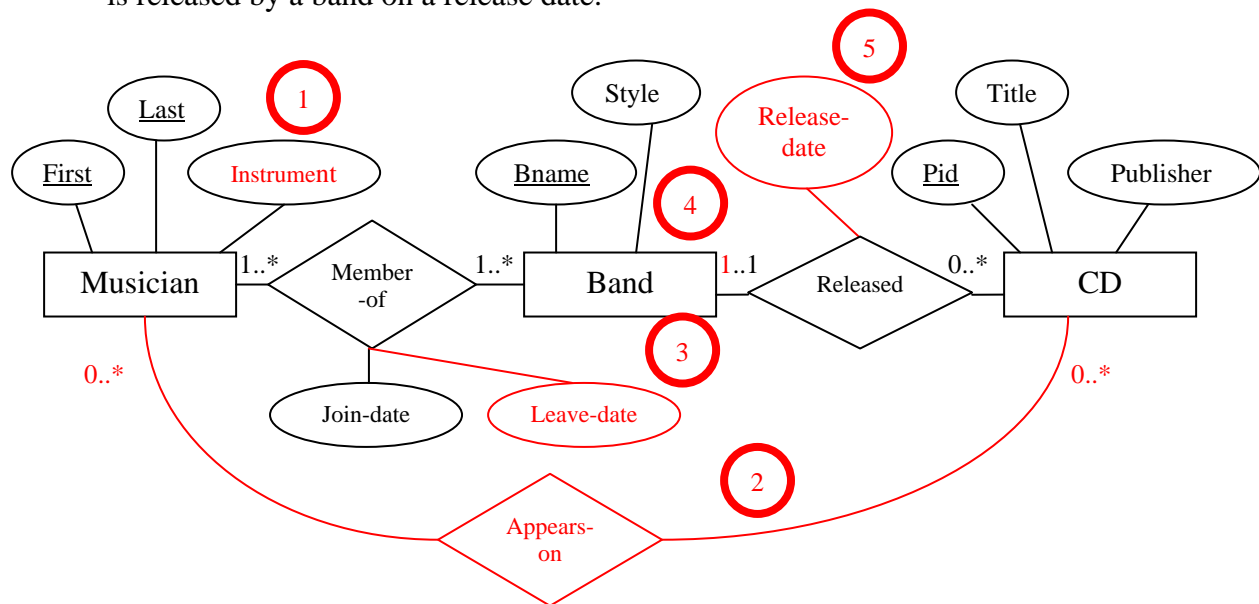
# CS 386: Quiz 4, 2 May 2006

Name: \_\_\_\_\_ KEY \_\_\_\_\_

No books or notes. Work individually.

Consider the following scenario and a possible ER diagram for it.

- There are musicians, identified by first and last name, and each plays an instrument.
- There are bands, each with a unique band name. Each band has a style.
- CDs are identified by their product ids, and each has a title and publisher.
- A musician is a member of one or more bands and a band has one or more musicians. For each musician in a band there is a date the musician joined and a date the musician left.
- A musician appears on one or more CDs
- Each CD is released by a single band, but a band can release any number of CDs. A CD is released by a band on a release date.



Find at least 5 problems with this ER diagram relative to the scenario described above. List them below, **and** show on the diagram how to fix each problem.

1. Instrument should not be part of the key of Musician
2. Missing relationship for Musician appearing on CD
3. No date of leaving on Member-of relationship
4. Every CD is issued by a Band, so the minimum cardinality on the Band end of the Released relationship should be 1.
5. Release date shouldn't be an attribute of Band, since a Band can release several CDs. Should be an attribute on either the Released relationship on the CD entity.