

Sony Music has decided to store information about musicians who perform on its albums (as well as other company data) in a database. The company has wisely chosen to hire you as a database designer.

- Each musician that records at Sony has an SSN, a name, an address, and a phone number. Poorly paid musicians often share the same address, and no address has more than one phone.
- Each instrument used in songs recorded at Sony has a unique identification number, a name (e.g., guitar, synthesizer, flute) and a musical key (e.g., C, B-flat, E-flat).
- Each album recorded on the Sony label has a unique identification number, a title, a copyright date, a format (e.g., CD or MC), and an album identifier.
- Each song recorded at Sony has a title and an author.
- Each musician may play several instruments, and a given instrument may be played by several musicians.
- Each album has several songs on it, but no song may appear on more than one album.
- Each song is performed by one or more musicians, and a musician may perform several songs.
- Each album has exactly one musician who acts as its producer. A musician may produce several albums, of course.

Design an ER diagram for Sony Music. Be sure to indicate all key and cardinality constraints and any assumptions you make.