**Lab 1**

**Name:**

Following the ER notations learned in class, draw ER diagrams for the following user requirements.

1. A vendor builds multiple types of tablet computers. Each type has a type identification number and a name. The key specifications for each type include amount of storage space and display type. The company uses multiple processor types, exactly one of which is used for a specific tablet computer type; obviously, the same processor can be used in multiple types of tablets. Each processor has a manufacturer name and a manufacturer’s unique code. The unique code identifies each processor.

Assumption:

The processor must be used in at least one tablet type, in order to be saved in our database.

Diagram

Description automatically generated with low confidence

1. A college course may have zero, one, or more scheduled sections. Attributes of Course include a unique Course\_ID, Course\_Name, and Units. Attributes of Section include Section\_Number (e.g., 1 or 2) and Semester\_ID. Semester\_ID is composed of Semester and Year. A combination of Section\_Number and Semester\_ID can distinguishes one section from another section for the same course but does not uniquely identify a section. Thus a section cannot be a stand-alone entity.

**Note:** weak entity type. Double box is used to represent it from UML. Represented bu double line.

Section:1-100;

Semester ID: fall 2022

Course ID: BAN 610

Diagram

Description automatically generated

1. (NCAA Basketball) Each university basketball team has an internal ID in the conference that uniquely identifies it. Each team also has a name and carries its current rank with it. Each team has none or multiple players. A player has SSN, name, height, weight, and position(s) they play. A player may play multiple positions. Each team has a head coach and each coach can only coach one team (Past information is ignored). The coach’s SSN, name, and salary will be stored in the database. Each team plays against other teams. For each game, the date of the game and the place of the game are recorded.

**Note: position: multivalued attribute-> curly braces**

Diagram

Description automatically generated

1. (Dell Inc.) Each computer manufactured in Dell has a unique serial number, CPU speed, memory size, price, and DVD speed. Each computer must belong to one warranty policy type, while each warranty policy type covers many computers. Every computer has to have a warranty, while we may have some warranty policy types not covering any computer at all. For each warranty policy type, we want to record its unique policy ID, name, and the length of coverage. Computers are assembled by assembly workers. We want to keep the following information about assembly line workers: name (including first and last name), a unique EID, phone number (s), and birth date. One worker can assemble many computers, and one computer can be assembled by many workers together. A computer has to be assembled by at least a worker, and a worker has to assemble at least one computer. For the assembling activity, we need to record how many hours each worker spent on each computer.

Diagram

Description automatically generated