

The answer to Problem I

```
CREATE TABLE members (  
    name          VARCHAR(20) NOT NULL,  
    card_number    NUMERIC PRIMARY KEY,  
    address        VARCHAR(50) NOT NULL  
)
```

```
CREATE TABLE wines (  
    name          VARCHAR(20),  
    appellation    VARCHAR(20),  
    vintage        NUMERIC,  
    alcohol_degree NUMERIC NOT NULL,  
    vineyard       VARCHAR(100) NOT NULL,  
    certifier      VARCHAR(50) NOT NULL,  
    country        VARCHAR(20) NOT NULL,  
    PRIMARY KEY (name, vintage, appellation)  
)
```

```
CREATE TABLE bottles (  
    wine_name      VARCHAR(20),  
    vintage        NUMERIC,  
    appellation    VARCHAR(20),  
    number         NUMERIC,  
    in_cellar      BOOLEAN NOT NULL,  
    PRIMARY KEY (number, wine_name, vintage, appellation),  
    FOREIGN KEY (wine_name, vintage, appellation) REFERENCES wines(name,  
vintage, appellation))
```

```
CREATE TABLE taste (  
    Member         NUMERIC(20),  
    wine_name      VARCHAR(20),  
    vintage        NUMERIC,  
    appellation    VARCHAR(20),  
    rating         VARCHAR(9) NOT NULL,  
    bottle_no      NUMERIC,  
    date          DATE NOT NULL,  
    PRIMARY KEY (member, bottle_no, wine_name, vintage, appellation),  
    FOREIGN KEY member REFERENCES members(card_number),  
    FOREIGN KEY (bottle_no, wine_name, vintage, appellation) REFERENCES  
bottles(number, name, vintage, appellation))
```

