CS2102 Tutorial 1 Solution

```
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))
```

member — taste — bottle

member attributes: name, address, card_number

taste attributes: date, rating

number

contain

appellation
name
vintage

wine

Other…