```
CREATE TABLE accounts (
    accountid serial UNIQUE,
    email varchar(100) UNIQUE,
    password varchar(50) NOT NULL,
    alias varchar(50) NOT NULL,
    creationdate timestamp without time zone NOT NULL DEFAULT CURRENT_TIMESTAMP(0),
    settings varchar(255),
    preferences varchar (255),
    PRIMARY KEY (AccountId)
);
CREATE TABLE recipes (
    recipeid serial UNIQUE,
    accountid serial NOT NULL REFERENCES accounts (accountid),
    name varchar(100) NOT NULL,
    description varchar (500) NOT NULL,
    creationdate timestamp without time zone NOT NULL DEFAULT CURRENT_TIMESTAMP(0),
    numberofservings INT NOT NULL,
    rating decimal NOT NULL,
    PRIMARY KEY (recipeid)
);
CREATE TABLE recipetags (
    recipeid serial NOT NULL REFERENCES recipes(recipeid),
    tag varchar(100) NOT NULL,
    CONSTRAINT recipetags_pkey PRIMARY KEY (recipeid, tag)
);
CREATE TABLE ingredients (
    ingredientid serial UNIQUE,
    name varchar(100) NOT NULL,
    measurementtype varchar(50) NOT NULL,
    measure int,
    price MONEY,
    organic boolean,
    fat decimal,
    fresh boolean,
    PRIMARY KEY (ingredientid)
);
CREATE TABLE ingredienttags (
    ingredientid serial NOT NULL REFERENCES ingredients(ingredientid),
    tag varchar(100) NOT NULL,
    CONSTRAINT ingredienttags_pkey PRIMARY KEY (ingredientid, tag)
);
CREATE TABLE retailers (
    retailerid serial UNIQUE,
    latitude varchar(100) NOT NULL,
    longitude varchar(100) NOT NULL,
    companyname varchar(100) NOT NULL,
    description varchar (500) NOT NULL,
    openinghours varchar (500),
    PRIMARY KEY (retailerid, latitude, longitude)
);
CREATE TABLE comments (
    commentid serial UNIQUE,
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recipeid serial NOT NULL REFERENCES recipes (recipeid),
    accountid serial NOT NULL REFERENCES accounts (accountid),
    creationdate timestamp without time zone NOT NULL DEFAULT CURRENT_TIMESTAMP(0),
    text varchar(500),
    PRIMARY KEY (commentid, recipeid)
);
CREATE TABLE ingredientin (
    ingredientid serial NOT NULL REFERENCES ingredients (ingredientid),
    recipeid serial NOT NULL REFERENCES recipes (recipeid),
    amount int NOT NULL,
    CONSTRAINT ingredientin_pkey PRIMARY KEY (ingredientid, recipeid)
);
CREATE TABLE offers (
    retailerid serial NOT NULL REFERENCES retailers (retailerid),
    ingredientid serial NOT NULL REFERENCES ingredients (ingredientid),
    offerfrom timestamp without time zone NOT NULL,
    offerto timestamp without time zone NOT NULL,
    normalprice MONEY,
    onsaleprice MONEY NOT NULL,
    krsaving MONEY,
    percentagesavingretailer decimal,
    percentagesavinggeneral decimal,
    CONSTRAINT offers_pkey PRIMARY KEY (retailerid, ingredientid)
);
CREATE TABLE pictures (
    accountid serial NOT NULL REFERENCES accounts (accountid),
    recipeid serial NOT NULL REFERENCES recipes (recipeid),
    picturepath varchar(255) NOT NULL,
    creationdate timestamp without time zone NOT NULL DEFAULT CURRENT_TIMESTAMP(0),
    CONSTRAINT pictures_pkey PRIMARY KEY (accountid, recipeid)
);
CREATE TABLE favorises (
    accountid serial NOT NULL REFERENCES accounts (accountid),
    recipeid serial NOT NULL REFERENCES recipes (recipeid),
   CONSTRAINT favorises_pkey PRIMARY KEY (accountid, recipeid)
);
CREATE TABLE haseaten (
    accountid serial NOT NULL REFERENCES accounts (accountid),
    recipeid serial NOT NULL REFERENCES recipes (recipeid),
    eatenat timestamp without time zone NOT NULL DEFAULT CURRENT_TIMESTAMP(0),
    rating decimal,
    CONSTRAINT haseaten_pkey PRIMARY KEY (accountid, recipeid)
);
```