

```
CREATE TABLE public.instrument (  
    name VARCHAR NOT NULL,  
    pitch VARCHAR NOT NULL,  
    CONSTRAINT instrument_pk PRIMARY KEY (name)  
);
```

```
CREATE TABLE public.address (  
    addressID INTEGER NOT NULL,  
    street1 VARCHAR(50) NOT NULL,  
    number INTEGER NOT NULL,  
    street2 VARCHAR(50) NOT NULL,  
    city VARCHAR NOT NULL,  
    state VARCHAR NOT NULL,  
    zipcode VARCHAR NOT NULL,  
    telephone VARCHAR NOT NULL,  
    CONSTRAINT addressid PRIMARY KEY (addressID)  
);
```

```
CREATE TABLE public.musician (  
    ssn INTEGER NOT NULL,  
    name VARCHAR(100) NOT NULL,  
    addressID INTEGER NOT NULL,  
    CONSTRAINT ssn PRIMARY KEY (ssn)  
);
```

```
CREATE INDEX musician_idx
```

ON public.musician

(ssn);

CREATE TABLE public.album (

albumID INTEGER NOT NULL,

title VARCHAR NOT NULL,

format VARCHAR NOT NULL,

release_date DATE NOT NULL,

age VARCHAR NOT NULL,

producer INTEGER NOT NULL,

CONSTRAINT album_pk PRIMARY KEY (albumID)

);

CREATE TABLE public.song (

title VARCHAR NOT NULL,

length INTEGER NOT NULL,

author INTEGER NOT NULL,

albumID INTEGER NOT NULL,

CONSTRAINT song_pk PRIMARY KEY (title)

);

CREATE TABLE public.uses (

name VARCHAR NOT NULL,

title VARCHAR NOT NULL,

CONSTRAINT uses_pk PRIMARY KEY (name, title)

);

CREATE TABLE public.plays (

```
        ssn INTEGER NOT NULL,  
        name VARCHAR NOT NULL,  
        CONSTRAINT plays_pk PRIMARY KEY (ssn, name)  
    );
```

```
CREATE TABLE public.performs (  
    ssn INTEGER NOT NULL,  
    title VARCHAR NOT NULL,  
    CONSTRAINT performs_pk PRIMARY KEY (ssn, title)  
);
```

```
ALTER TABLE public.plays ADD CONSTRAINT instrument_plays_fk  
FOREIGN KEY (name)  
REFERENCES public.instrument (name)  
ON DELETE NO ACTION  
ON UPDATE NO ACTION  
NOT DEFERRABLE;
```

```
ALTER TABLE public.uses ADD CONSTRAINT instrument_uses_fk  
FOREIGN KEY (name)  
REFERENCES public.instrument (name)  
ON DELETE NO ACTION  
ON UPDATE NO ACTION  
NOT DEFERRABLE;
```

```
ALTER TABLE public.musician ADD CONSTRAINT address_musician_fk  
FOREIGN KEY (addressID)  
REFERENCES public.address (addressID)  
ON DELETE NO ACTION
```

ON UPDATE NO ACTION

NOT DEFERRABLE;

ALTER TABLE public.performs ADD CONSTRAINT musician_authors_fk

FOREIGN KEY (ssn)

REFERENCES public.musician (ssn)

ON DELETE NO ACTION

ON UPDATE NO ACTION

NOT DEFERRABLE;

ALTER TABLE public.plays ADD CONSTRAINT musician_plays_fk

FOREIGN KEY (ssn)

REFERENCES public.musician (ssn)

ON DELETE NO ACTION

ON UPDATE NO ACTION

NOT DEFERRABLE;

ALTER TABLE public.song ADD CONSTRAINT musician_song_fk

FOREIGN KEY (author)

REFERENCES public.musician (ssn)

ON DELETE NO ACTION

ON UPDATE NO ACTION

NOT DEFERRABLE;

ALTER TABLE public.album ADD CONSTRAINT musician_album_fk

FOREIGN KEY (producer)

REFERENCES public.musician (ssn)

ON DELETE NO ACTION

ON UPDATE NO ACTION

NOT DEFERRABLE;

```
ALTER TABLE public.song ADD CONSTRAINT album_song_fk
FOREIGN KEY (albumID)
REFERENCES public.album (albumID)
ON DELETE NO ACTION
ON UPDATE NO ACTION
NOT DEFERRABLE;
```

```
ALTER TABLE public.performs ADD CONSTRAINT song_performs_fk
FOREIGN KEY (title)
REFERENCES public.song (title)
ON DELETE NO ACTION
ON UPDATE NO ACTION
NOT DEFERRABLE;
```

```
ALTER TABLE public.uses ADD CONSTRAINT song_uses_fk
FOREIGN KEY (title)
REFERENCES public.song (title)
ON DELETE NO ACTION
ON UPDATE NO ACTION
NOT DEFERRABLE;
```