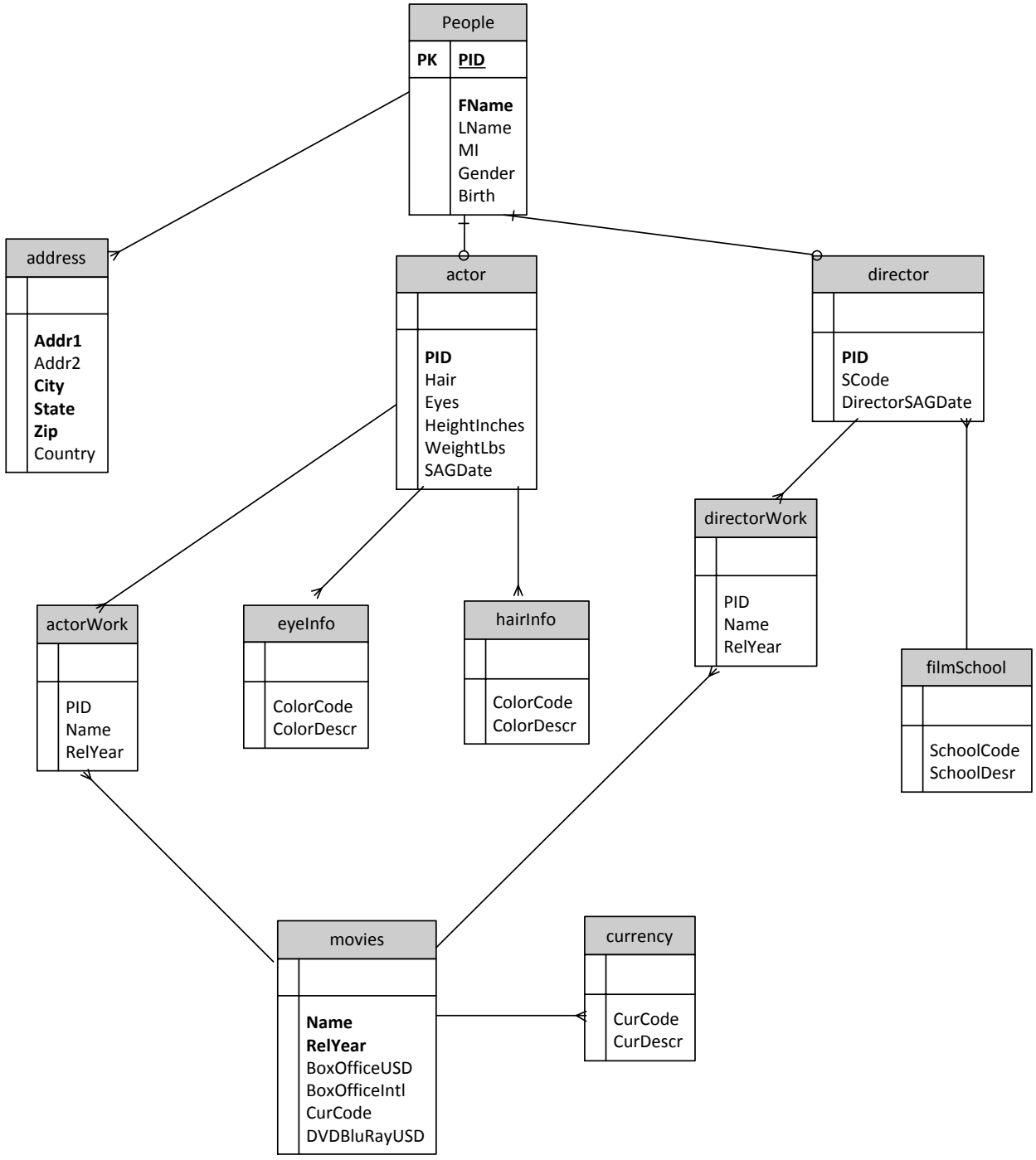
Lab 8: Normalization Two

E/R Diagram



SQL Create Statements & functional dependencies

```
--people table
Functional dependency
PID    -> FName, LName, MI, Gender, Birth
```

```
CREATE TABLE people (
	PID	integer PRIMARY KEY,
	FName	varchar(100) NOT NULL,
	LName	varchar(100) NOT NULL,
	MI	varchar(1),
	Gender	varchar(1),
	Birth	date
);

--address table
Functional dependency
Addr1, Addr2, City, State, Zip, Country -> PID

CREATE TABLE address (
	PID	integer NOT NULL,
	Addr1	varchar(100) NOT NULL,
	Addr2	varchar(100),
	City	varchar(50) NOT NULL,
	State	varchar(2) NOT NULL,
	Zip	varchar(10) NOT NULL,
	Country		varchar(50)
);

--actor table
Functional dependency
Hair, Eyes, HeightInches, WeightLbs, SAGDate -> PID

CREATE TABLE actor (
	PID		integer NOT NULL,
	Hair		varchar(2),
	Eyes		varchar(2),
	HeightInches	integer,
	WeightLbs	integer,
	SAGDate			date
);

--director table
Functional dependency
SCode, DirectorSAGDate -> PID

CREATE TABLE director (
	PID		integer NOT NULL,
	SCode		varchar(10),
	DirectorSAGDate		date
);




--hairInfo table
Functional dependency
ColorCode, ColorDescr ->

CREATE TABLE hairInfo (
	ColorCode	varchar(2),
	ColorDescr	varchar(100)
);
```

```
--eyeInfo table
Functional dependency
ColorCode, ColorDescr ->

CREATE TABLE eyeInfo (
       ColorCode     varchar(2),
       ColorDescr    varchar(100)
);

--movie table
Functional dependency
Name, RelYear -> BoxOfficeUSD, BoxOfficeIntl, CurCode, DVDBluRayUSD

CREATE TABLE movies (
       Name          varchar(100) NOT NULL,
       RelYear              varchar(4) NOT NULL,
       BoxOfficeUSD  varchar(6),
       BoxOfficeIntl varchar(6),
       CurCode              varchar(4),
       DVDBluRayUSD  varchar(6)
);

--actor work table
Functional dependency
Name, Relyear -> PID

CREATE TABLE actorWork (
       PID    integer,
       Name   varchar(100),
       RelYear       varchar(4)
);

--director work table
Functional dependency
Name, RelYear -> PID

CREATE TABLE directorWork (
       PID    integer,
       Name   varchar(100),
       RelYear       varchar(4)
);

--currency table
Functional dependency
CurCode, CurDescr ->

CREATE TABLE currency (
       CurCode              varchar(4),
       CurDescr      varchar(20)
);

--film school table
Functional dependency
SchoolCode, SchoolDescr ->

CREATE TABLE filmschool (
       SchoolCode    varchar(4),
```

```
	SchoolDescr	varchar(100)
);
```

SQL Insert Statements

```
--insert into people table
insert into people (PID, FName, LName, MI, Gender, Birth)
Values (1,'Johnny', 'Depp', '', 'm', '1970-09-08');
insert into people (PID, FName, LName, MI, Gender, Birth)
Values (2,'Sean', 'Connery', '', 'm', '1940-06-21');
insert into people (PID, FName, LName, MI, Gender, Birth)
Values (3,'Amy', 'Poehler', '', 'f', '1972-04-21');
insert into people (PID, FName, LName, MI, Gender, Birth)
Values (4,'Martin', 'Scorcese', '', 'm', '1950-03-09');
insert into people (PID, FName, LName, MI, Gender, Birth)
Values (5,'Tina', 'Fey', '', 'f', '1971-03-30');

--insert into address table
insert into address(PID, Addr1, Addr2, City, State, Zip, Country)
values (1,'400 rue st clair','40','Marseille','','00082','France');
insert into address(PID, Addr1, Addr2, City, State, Zip, Country)
values (1,'40 beverly hils','','Los Angeles','CA','90210','USA');

insert into address(PID, Addr1, Addr2, City, State, Zip, Country)
values (2,'10 downing st','flat 8','London','','H21-89J','UK');
insert into address(PID, Addr1, Addr2, City, State, Zip, Country)
values (2,'100 country lane','','Smithtown','NY','10090','USA');

insert into address(PID, Addr1, Addr2, City, State, Zip, Country)
values (3,'30 Chiswick rd','Apt 8E','Boston','MA','09876','USA');

insert into address(PID, Addr1, Addr2, City, State, Zip, Country)
values (4,'900 San Quentin rd','','Pasadena','CA','90876','USA');

insert into address(PID, Addr1, Addr2, City, State, Zip, Country)
values (5,'200 park ave','6M','New York','NY','10221','USA');

--insert into actor table
insert into actor(PID, Hair, Eyes, HeightInches, WeightLbs, SAGDate)
values(1, 'BL', 'BR', 36, 160, '2000-03-04');
insert into actor(PID, Hair, Eyes, HeightInches, WeightLbs, SAGDate)
values(2, 'BL', 'BR', 42, 180, '1984-03-04');
insert into actor(PID, Hair, Eyes, HeightInches, WeightLbs, SAGDate)
values(3, 'BL', 'BL', 30, 120, '2002-03-04');
insert into actor(PID, Hair, Eyes, HeightInches, WeightLbs, SAGDate)
values(5, 'BR', 'BR', 30, 120, '1999-03-04');

--insert into director table
insert into director(PID, SCode, DirectorSAGDate)
values(2, 'UKFS', '1984-02-02');
insert into director(PID, SCode, DirectorSAGDate)
values(4, 'Bkly', '1998-12-02');
insert into director(PID, SCode, DirectorSAGDate)
values(5, 'NYU', '1998-12-02');

--insert into hairinfo table
insert into hairInfo(ColorCode, ColorDescr)
```

```
values('BL','black');
insert into hairInfo(ColorCode, ColorDescr)
values('BO','blonde');
insert into hairInfo(ColorCode, ColorDescr)
values('BR','brown');

--insert into eyeinfo table
insert into eyeInfo(ColorCode, ColorDescr)
values('BL','blue');
insert into eyeInfo(ColorCode, ColorDescr)
values('BR','brown');

--insert into movies table
insert into movies(Name, RelYear, BoxOfficeUSD, BoxOfficeIntl, CurCode, DVDBluRayUSD)
values('Pirates of the Caribbean','2003','40 bil','20 mil','GBP','50 bil');
insert into movies(Name, RelYear, BoxOfficeUSD, BoxOfficeIntl, CurCode, DVDBluRayUSD)
values('The Departed','2007','20 mil','10 mil','INR','60 mil');
insert into movies(Name, RelYear, BoxOfficeUSD, BoxOfficeIntl, CurCode, DVDBluRayUSD)
values('Never Say Never Again','1983','50 bil','90 mil','AUD','60 mil');

--insert into actorwork table
insert into actorWork(PID, Name, RelYear)
values(2,'Never Say Never Again','1983');
insert into actorWork(PID, Name, RelYear)
values(1,'Pirates of the Caribbean','2003');

--insert into directorwork table
insert into directorWork(PID, Name, RelYear)
values(4,'The Departed','2007');
insert into directorWork(PID, Name, RelYear)
values(4,'Never Say Never Again','1983');

--insert into currency table
insert into currency(CurCode, CurDescr)
values('GBP','Great Britain Pounds');
insert into currency(CurCode, CurDescr)
values('INR','Indian Rupees');
insert into currency(CurCode, CurDescr)
values('AUD','Australian Dollar');
insert into currency(CurCode, CurDescr)
values('USD','USA Dollar');

--insert into film school table
insert into filmschool(SchoolCode,SchoolDescr)
values('UKFS','UK Film School');
insert into filmschool(SchoolCode,SchoolDescr)
values('Bkly','Berkely');
insert into filmschool(SchoolCode,SchoolDescr)
values('NYU','NYU Film School');
```

Query to return all directors with whom actor “Sean Connery” has worked

Select p.fname, p.lname, d.pid

From people p

Inner join actorwork a

On p.pid = a.pid

And p.fname = ‘Sean’ and p.lname = ‘Connery’

Inner join directorwork d

On a.name = d.name

And a.relyear = d.relyear