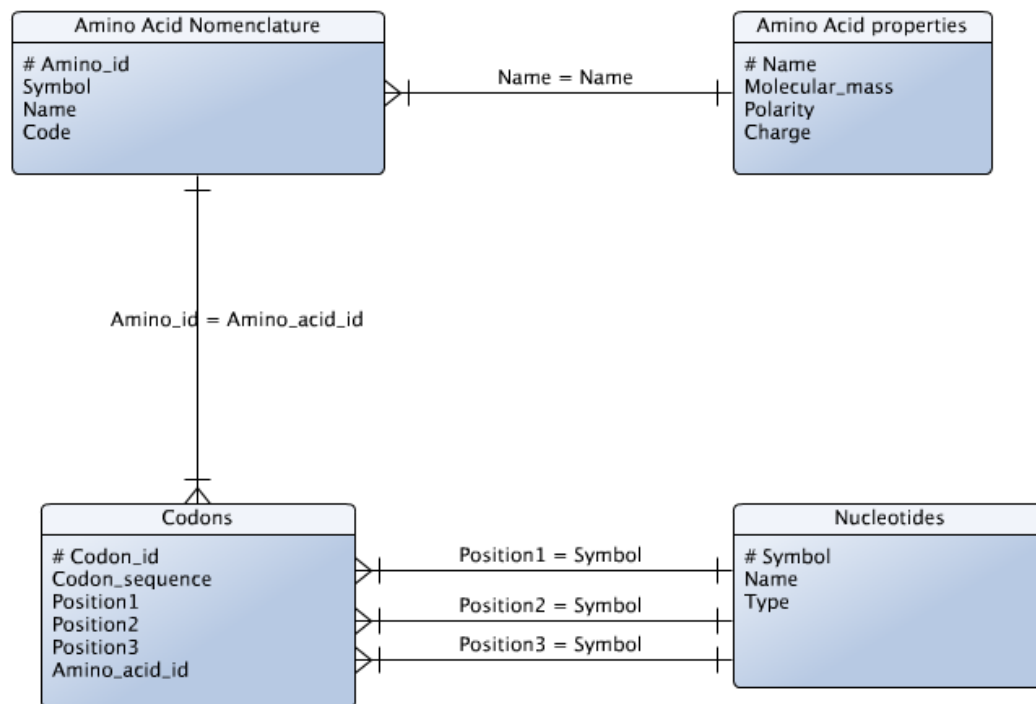
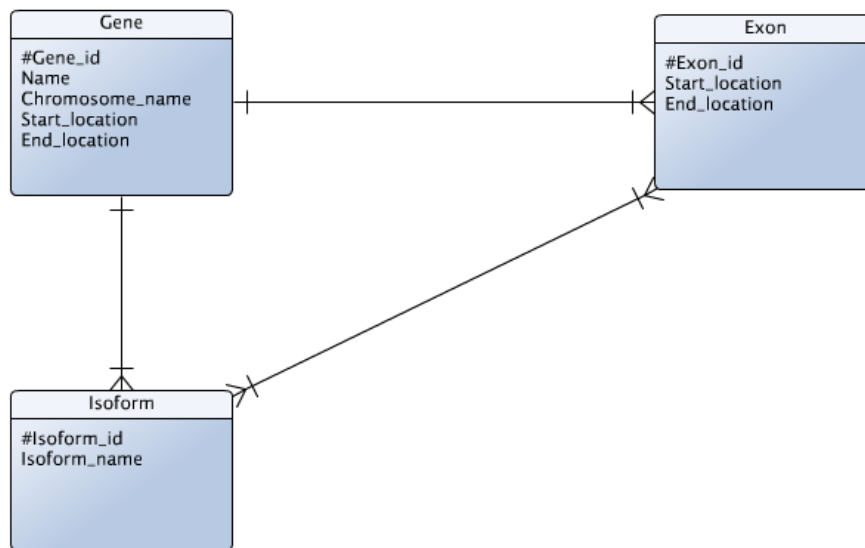


**OPPG 1:****OPPG 2.1:**

Gene(), Isoform(), Exon()

**OPPG 2.2:**

**OPPG 2.3:**

Tolker oppg som at både gene\_id og gene\_name er unike.

Gene(#Gene\_id, Chromosome\_name, Start\_location, Stop\_location)

Gene\_name(#Gene\_name, Gene\_id\*)

Exon(#Exon\_id, Start\_location, Stop\_location, Gene\_id\*)

Isoform(#Isoform\_id, Isoform\_name, Gene\_id\*)

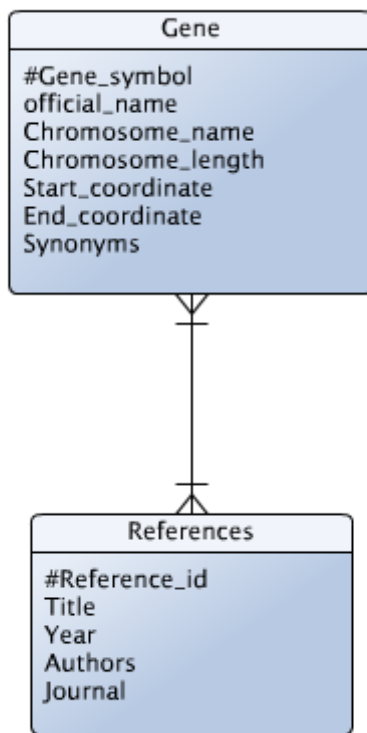
Gene\_exons(#Exon\_id\*, #Isoform\_id\*)

**OPPG 3.1:**

Gene(), References()

**OPPG 3.2:**

Et gen kan ikke sies å være anerkjent før det eksisterer minst ett referanseverk (artikkel) som forteller om funnet der det er oppgitt et generelt godkjent navn for genet.

**OPPG 3.3:**

Gene (#Gene\_symbol, Official\_name, Chromosome\_name, Chromosome\_length, Start\_coordinate, End\_coordinate)

Synonyms(# Synonym, #Gene\_symbol\*)

Reference (# Reference\_id, #Gene\_id\*, Title, Journal, Year)

Authors(#Referance\_id\*, #author\_name)

**OPPG 3.4:** 3.3 med BCNF

Gene (#Gene\_symbol, Start\_coordinate, End\_coordinate, Chromosome\_name\*)

Gene\_name(#Official\_name, Gene\_symbol\*)

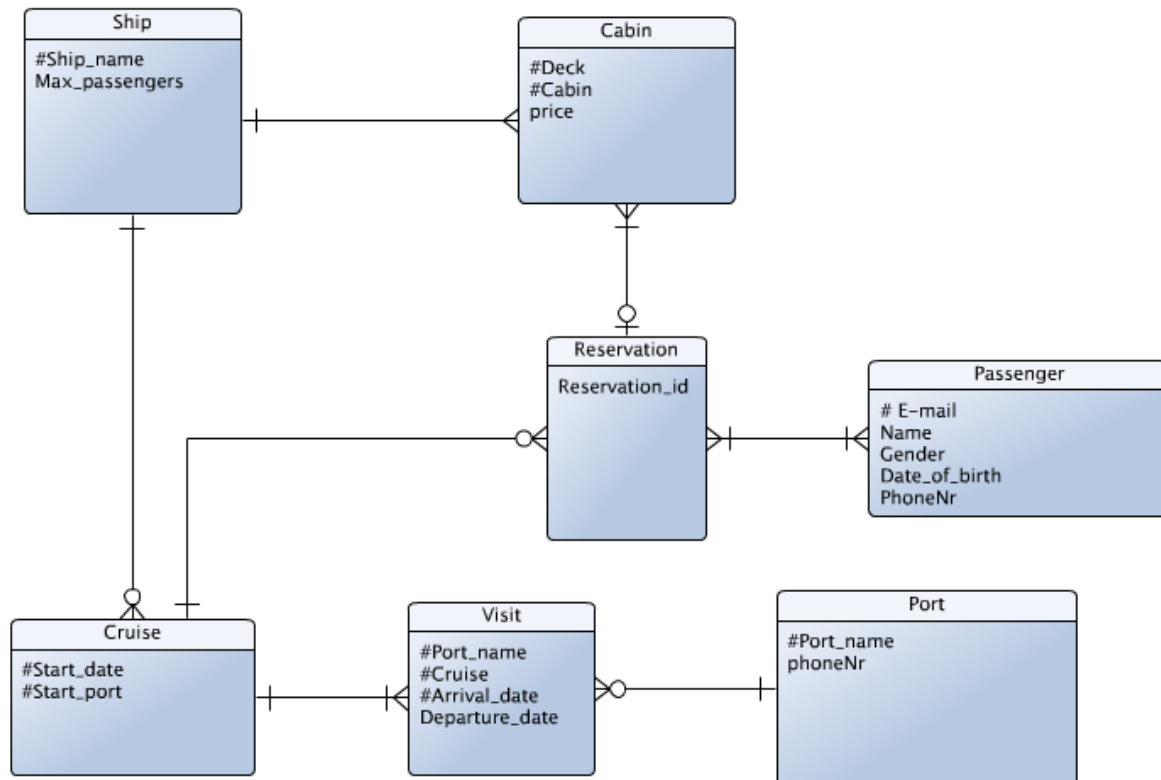
Cromosome (#Chromosome\_name, Chromosome\_length)

Synonyms(# Synonym, #Gene\_symbol\*)

Reference(#reference\_id Title, Journal, Year))

Gene\_reference(#Reference\_id,\* #Publication\*)

Authors(#Referance\_id\*, #author\_name)

**OPPG 4****OPPG 5.1:**

En av grunnene til at dette er et problematisk forslag er at Truck ikke har noen primærnøkkel.

**OPPG 5.2:**

Registration\_number -> Registration\_year

Registration\_number -> Model

Registration\_number -> Maximum\_weight

Model -> Maximum\_weight

**OPPG 5.3:**

Vi må sette sammen Reistration\_number og Assignment\_number for å få en unik primærnøkkel. Registration\_number alene gir oss all nyttig informasjon om bilen, og for en klasse Truck (som bare holder informasjon om en truck), ville jeg ha valgt kun denne som primærnøkkel.

OPPG 5.4:

Container\_type (#Type\_id, Type\_name, Max\_weight, Cubic\_quantity, Nightly\_rate)

Container (#Container\_number, Type\_id\*)

Customer (#Telephone\_number, Address)

Assignment (#Assignment\_number, Telephone\_number\*, Container\_number\*, Start\_date, End\_date)

Truck (#Registration\_number, Registration\_year, Model)

Truck\_weight(#Registration\_number\*, Maximum\_weight)

Delivery(#Assignment\_number\*, #registration\_number\*)