INSY – Car Production

1. Discover and write down all entities in the scenario description.

   cars
   engine
   battery
   engine Factory
   supplier
   cylinder
   tires
   buyers
   tire manufacturer

2. Now attempt to find the attributes for these entities.

cars:	engine, battery, tire, price, FIN
engine:	type, cylinder, power rating
battery:	capacity
engine factory:	location
buyers:	name
supplier:	supplier code
cylinder:	volume, supplier
tire manufacturer:	brand name
tire:	tire-Manufacturer, season

3. The relations between the entities are also contained in the text – write down which entities
4. For each relation decide on the cardinalities (e.g. 1:1, 1:n, m:n, 1:c,. . .) and write them down.

Entity Set 1	Entity Set 2	Relation Type	Relation
car	engine	c - 1	has one
car	battery	c - c	has one
car	tire	c - m	has four
engine	cylinder	c - c	has one
engine	engine factory	mc - 1	is produced at
tire	tire manufacturer	mc - 1	comes from a
cylinder	supplier	mc - 1	sourced externally

5. Create an ERD in Martin/Crow's Foot notation based on the scenario and your identified entities, relations (with 'names' & cardinalities) and attributes.