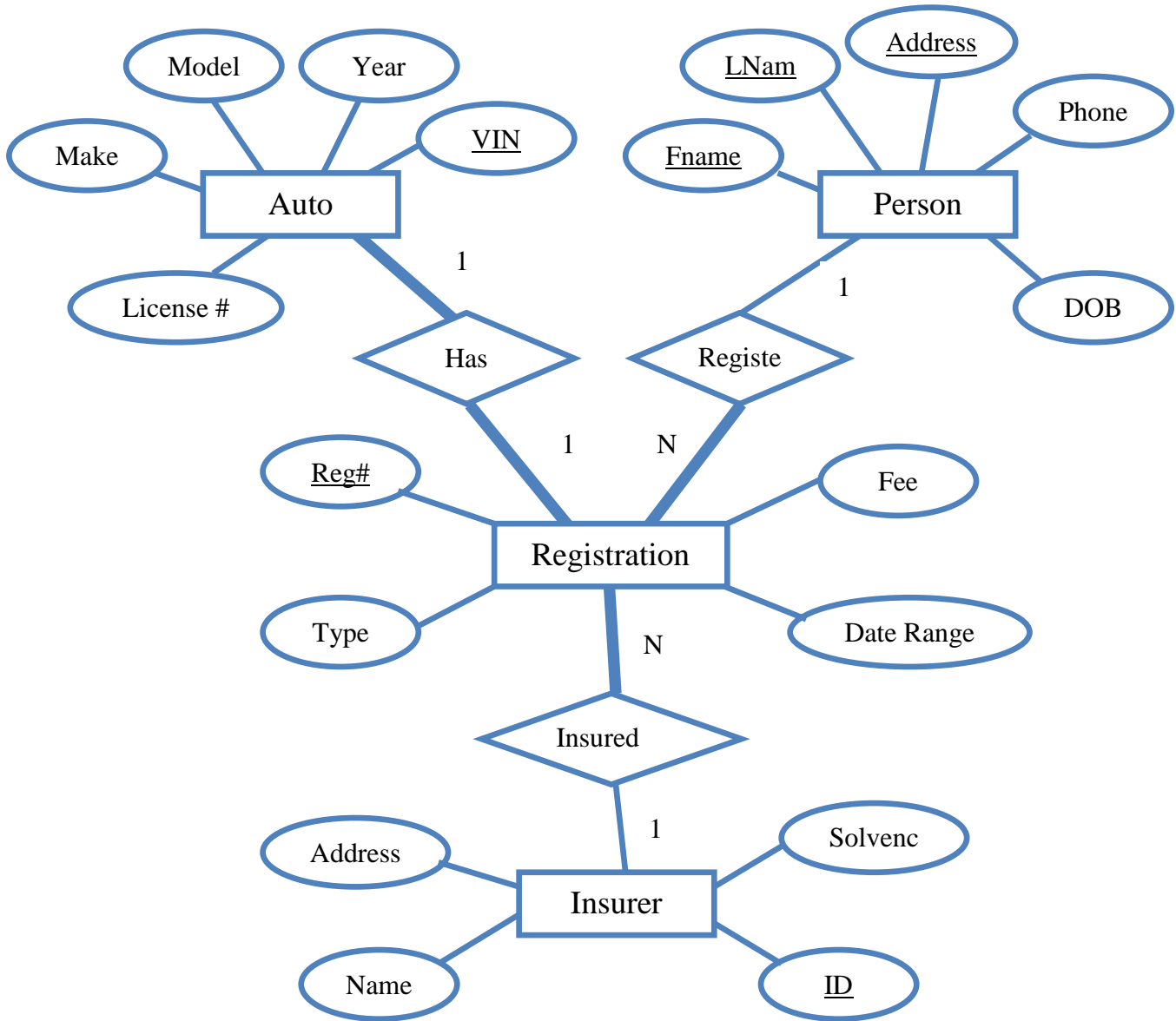
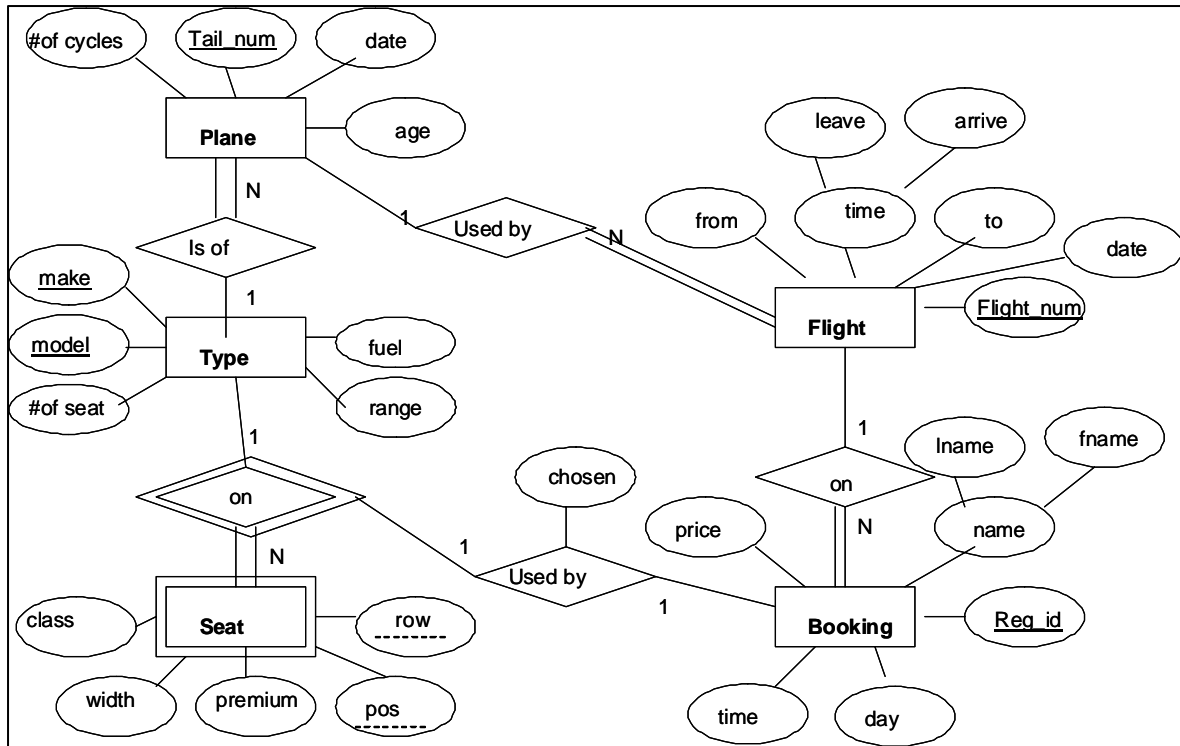


Quiz 1 Solution

1) ER Diagram



(2) ER diagram



(3) Relational Algebra

- $\pi_{\text{cname}} \left(\sigma_{\text{pname}='polomoniapark'} (CLIMBED) \right)$
- $\pi_{\text{cname}} \left(\left(\sigma_{\text{height}>1400} (PEAK) \right) * CLIMBED \right)$
- $\pi_{\text{cname}} \left(\left(\left(\sigma_{\text{region}='Mono\ Recesses'} (PEAK) \right) \times \left(\sigma_{\text{age}>40} (CLIMBED) \right) \right) * CLIMBED \right)$
- $\pi_{\text{pname}} \left(\sigma_{\text{year}=2007} (CLIMBED) \right) \cap \pi_{\text{pname}} \left(\sigma_{\text{year}=2008} (CLIMBED) \right)$
- $\pi_{\text{pname}} \left(CLIMBED * \left(\sigma_{\text{gender}='M'} (CLIMBER) \right) \right) - \pi_{\text{pname}} \left(CLIMBED * \left(\sigma_{\text{gender}='W'} (CLIMBER) \right) \right)$