Dzhemilya Gizutdinova Lab 4, Task 2

1. Π*sname* (Π*sid* σ *color* = *red Parts* ⋈ σ *cost* < 100 *Catalog* ⋈ *Suppliers*)

- **First query computes names (of one and several suppliers) of suppliers who sell red parts with cost which is less than $ 100.**

2. (Π*sname* σ *color* = *red Parts* ⋈ σ *cost* < 100 *Catalog* ⋈ *Suppliers*)) ∩ (Π*sname* ((σ *color* = *green Parts*) ⋈ (σ *cost* < 100 *Catalog*) ⋈ *Suppliers*))

- **Second query computes names (of one and several suppliers) of suppliers who sell both some red parts & some green parts with cost which is less than $ 100.**

3. (Π*sid* σ *color* = *red Parts* ⋈ σ *cost* < 100 *Catalog* ⋈ *Suppliers*) ∩ (Π*sid* ((σ *color* = *greenParts*) ⋈ (σ *cost* < 100 *Catalog* ⋈ *Suppliers*))

- **Third query computes SID (of one supplier) who sell both some red and some green parts with cost which is less than $ 100.**

4. Π*sname*((Π*sid, sname* ((σ *color* = *red Parts*) ⋈ (σ *cost* < 100 *Catalog*) ⋈ *Suppliers*)) ∩ (Π*sid,sname* ((σ *color* = *green Parts*) ⋈ (σ *cost* < 100 *Catalog*) ⋈ *Suppliers*)))

- **Fourth query computes names (of one supplier) of suppliers who sell both some red and some green parts with cost which is less than $ 100.**