

# CSC343 Worksheet 2 Solution

June 11, 2020

## 1. Exercise 2.4.1:

a)  $\sigma_{speed \geq 3.0}(\text{Movies})$

Models 1005, 1006, 1013 have speed greater than 3.0

<i>model</i>	<i>speed</i>	<i>ram</i>	<i>hd</i>	<i>price</i>
1001	2.66	1024	250	2114
1002	2.10	512	250	995
1003	1.42	512	80	478
1004	2.80	1024	250	649
→ 1005	3.20	512	250	630
→ 1006	3.20	1024	320	1049
1007	2.20	1024	200	510
1008	2.20	2048	250	770
1009	2.00	1024	250	650
1010	2.80	2048	300	770
1011	1.86	2048	160	959
1012	2.80	1024	160	649
→ 1013	3.06	512	80	529

## Notes:

- Select
  - Is indicated by  $\sigma$
  - **Syntax:**  $\sigma_{\text{QUERY}}(\text{SCHEMA\_NAME})$
  - e.g.  $\sigma_{length \geq 100 \text{ AND } studioName = 'Fox'}(\text{Movies})$

Relation - Movies

<i>title</i>	<i>year</i>	<i>length</i>	<i>inColor</i>	<i>studioName</i>	<i>producerC#</i>
Star Wars	1977	124	sciFi	Fox	12345
Galaxy Quest	1999	104	comedy	DreamWorks	67890

b) Notes:

- Project
  - Picks certain columns
  - Is indicated by  $\pi$
  - **Syntax:**  $\pi_{A_1, A_2, \dots, A_n}(\text{Rel})$