

## CSC 421 – Assignment 2

Write up – Adar Guy & Tate Nychporuk

### Question 2

#### Sample Domain:

```
{(fall_2016, 1, 08:00-09:00), (fall_2016, 1, 09:00-10:00), ..., (fall_2016, 1, 17:00-18:00),
(fall_2016, 2, 08:00-09:00), (fall_2016, 2, 09:00-10:00), ..., (fall_2016, 2, 17:00-18:00),
(fall_2016, 3, 08:00-09:00), (fall_2016, 3, 09:00-10:00), ..., (fall_2016, 3, 17:00-18:00),
(fall_2016, 4, 08:00-09:00), (fall_2016, 4, 09:00-10:00), ..., (fall_2016, 4, 17:00-18:00),

(spr_2017, 1, 08:00-09:00), (spr_2017, 1, 09:00-10:00), ..., (spr_2017, 1, 17:00-18:00),
(spr_2017, 2, 08:00-09:00), (spr_2017, 2, 09:00-10:00), ..., (spr_2017, 2, 17:00-18:00),
(spr_2017, 3, 08:00-09:00), (spr_2017, 3, 09:00-10:00), ..., (spr_2017, 3, 17:00-18:00),
(spr_2017, 4, 08:00-09:00), (spr_2017, 4, 09:00-10:00), ..., (spr_2017, 4, 17:00-18:00),
...
}
```

#### Constraints:

##### Term-Slot Constraints:

Suppose that an assignment A has (termX, slotX, timeX) for X and (termY, slotY, timeY) for Y. Then, A is consistent if (termX, slotX) != (termY, slotY).

##### Time-Slot Constraints:

Suppose that an assignment A has (termX, slotX, timeX) for X and (termY, slotY, timeY) for Y. Then, A is consistent if (termX = termY) ^ (timeX != timeY).

##### Perquisites Constraints:

Suppose that an assignment A has (termX, slotX, timeX) for X and (termY, slotY, timeY) where X is a prerequisite of Y. Then, A is consistent if (termX < termY).

### Question 3

The zebra lives in the 5<sup>th</sup> house.

```
{blue=2, chesterfield=2, coffee=5, dog=4, englishman=3, fox=1,
green=5, horse=2, ivory=4, japanese=5, kools=1, lucky-strike=4,
milk=3, norwegian=1, old-gold=3, orange-juice=4, parliament=5,
red=3, snails=3, spaniard=4, tea=2, ukrainian=2, water=1,
yellow=1, zebra=5}
```