CAP 4621 – Intro to AI

Programming Assignment 4 – Part 1 – will be collected in class on 3/23/2020

1. Names of people in the group for programming assignment : Tyler Brown, Oleg Tielushko

2. [2 points] The title for our expert system is : Zombie_Apocalypse_Planner

3. [2 points] The goal of the expert system is: To decide which weapon the user should use during a zombie apocalypse

4. [4 points] The following CLIPS statements will define **Two classes** for our expert system knowledge base. Write the actual CLIPS statements that will define the classes

CLASS 1

```
(defclass ZOMBIE
        (is-a USER)
         (role concrete)
        (slot z_type)
        (slot walking)
        (slot is_fast)
)
```

CLASS 2

```
(defclass SURVIVOR
        (is-a USER)
        (role concrete)
        (slot sur_type)
        (slot strong)
        (slot stamina)
        (slot on_the_move)
        (slot user_weapon)
)
```

5. [4 points] The following CLIPS statements will define **Two objects** for our expert system knowledge base. Write the actual CLIPS statements that will define the objects

OBJECT 1

```
;Objects start blank and are user defined
        (definstances SURVIVOR-INSTANCES
                (user of SURVIVOR)
        )
```

OBJECT 2

```
        (definstances ZOMBIE-INSTANCES
                (z of ZOMBIE)
        )
```

6. [3 points] Two intermediate conclusions for the expert system will be

```
(defrule is_a_couch_potato
        ?ins <- (object (is-a SURVIVOR) (strong no) (stamina no))
=>
        (send ?ins put-sur_type couch_potato)
)
```

_____ AND _____

```
(defrule is_sprinter
        ?ins <- (object (is-a ZOMBIE) (walking yes) (is_fast yes))
=>
        (send ?ins put-z_type sprinter)
)
```