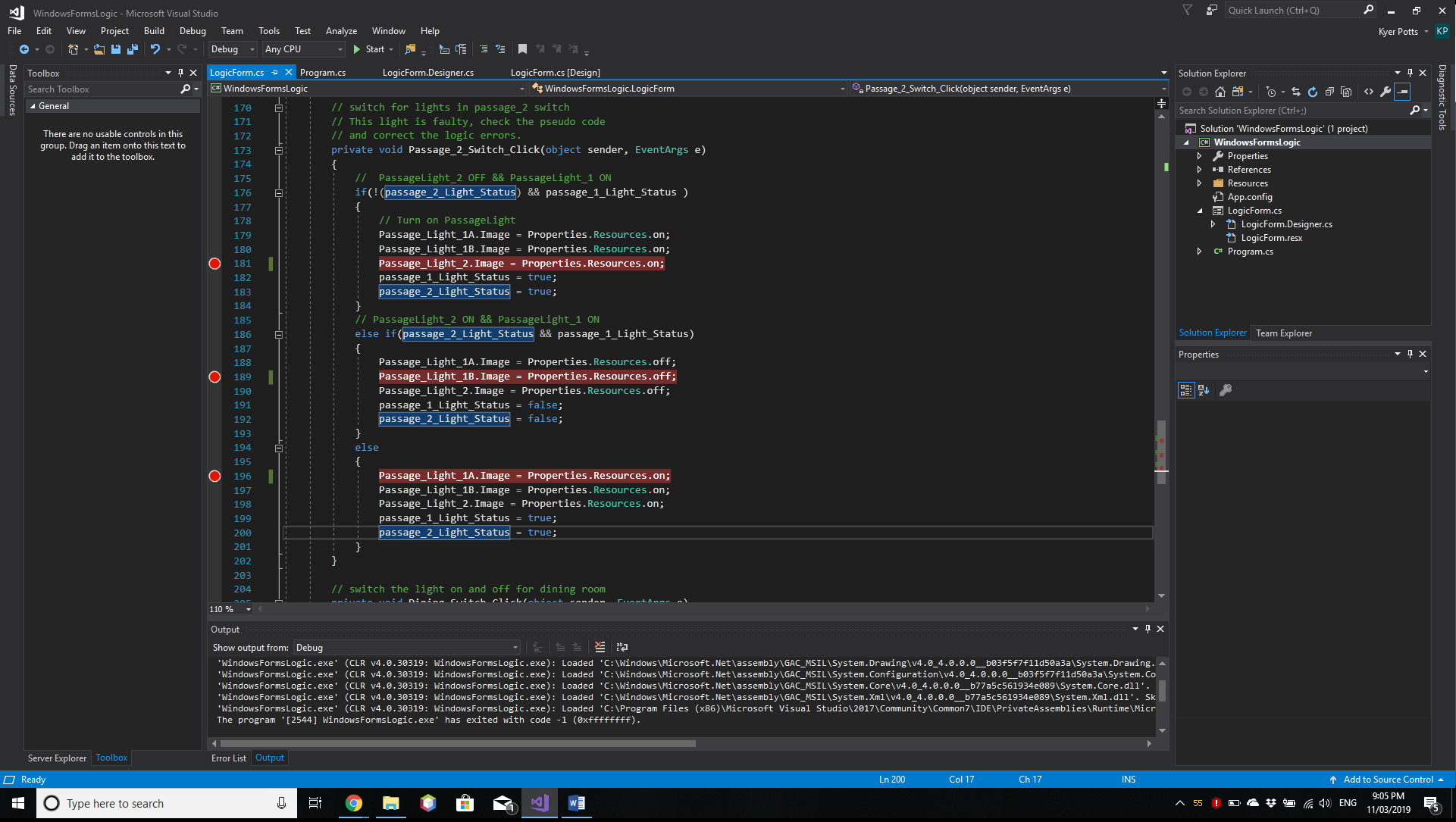
Practical Assessment AT2

30003389 – Kyer Potts

# Task One (Debug Code)



# Task Three

##### Question One

De Morgans Laws are a set of Boolean algebraic rules that allow the expression of conjunction and disjunction in relation to each other by method of negation.

(!(passage\_2\_Light\_Status) && !(passage\_1\_Light\_Status ))

Is equal to

(!(passage\_2\_Light\_Status || passage\_1\_Light\_Status))

##### Question Two

##### C# code: If (bedroom\_1\_Light\_Status OR bath\_1\_Light\_Status)

##### Logic (A || B)

|  |  |  |
| --- | --- | --- |
| ABedroom\_1\_Light\_Status | BBath\_1\_Light\_Status | A or B |
| T | T | T |
| T | F | T |
| F | T | T |
| F | F | F |

##### Question Three

##### C# code: If (!(passage\_2\_Light\_Status) && passage\_1\_Light\_Status)

##### Logic: ((!A) && B)

|  |  |  |  |
| --- | --- | --- | --- |
| APassage\_2\_Light\_Status | NOT A!(Passage\_2\_Light\_Status) | BPassage\_1\_Light\_Status | !A and B |
| T | F | T | F |
| T | F | F | F |
| F | T | T | T |
| F | T | F | F |

##### C# code: Else IF (passage\_2\_Light\_Status && passage\_1\_Light\_Status)

##### Logic: (A && B)

|  |  |  |
| --- | --- | --- |
| APassage\_2\_Light\_Status | BPassage\_1\_Light\_Status | A and B |
| T | T | T |
| T | F | F |
| F | T | F |
| F | F | F |

##### Question Four

##### C# code: If(dining\_Light\_Status OR entrance\_Light\_Status)

##### Logic: (A || B || C)

|  |  |  |  |
| --- | --- | --- | --- |
| ADining\_Light\_Status | BLounge\_Light\_Status | CEntrance\_Light\_Status | A or B or C |
| T | T | T | T |
| F | T | T | T |
| F | F | T | T |
| F | F | F | F |
| T | F | F | T |
| T | T | F | T |
| T | F | T | T |
| F | T | F | T |