



# ECE 321 SOFTWARE REQUIREMENTS ENG (LEC A1 Fa18)

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## Assignment 3

### Submission status

Attempt number	This is attempt 1 ( 1 attempts allowed ).
Submission status	Submitted for grading
Grading status	Graded
Due date	Thursday, 1 November 2018, 11:00 PM
Time remaining	Assignment was submitted 2 days 1 hour early
Last modified	Tuesday, 30 October 2018, 9:20 PM
File submissions	<div> <a href="#">Arun Woosaree Assignment3.pdf</a> + <a href="#">Export to portfolio</a></div>
Submission comments	<div> <a href="#">Comments (0)</a></div>

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## Feedback

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Grade	97.50 / 100.00
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Graded on	Tuesday, 27 November 2018, 3:05 AM
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Graded by	 Ahmed Chaari
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## Feedback comments

\*\*\*\*\* I will use (Fix This!) for the section that is wrong in Your code

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\*\*\*\*\* Solution \*\*\*\*\*

for all [q1: Queue; q2: Queue; c1: Car; c2: Car; c3: Car; i1: Integer]

CarDeparts(New) = error;

CarDeparts(CarArrives(c1, q1)) =

if (IsEmpty(q1) == true)

then New;

else CarArrives(c1, CarDeparts(q1));

IsEmpty(New) = true;

IsEmpty(CarArrives(c1, q1)) = false;

NumberOfCars(New) = 0;

NumberOfCars(CarArrives(c1, q1)) = NumberOfCars(q1)+1;

Longer(New, i1) = false;

(better !!)

Longer(CarArrives(c1, q1), i1) =

if (NumberOfCars(q1) == i1)

then true;

else Longer(q1,i1);

FirstCar(New) = error;

FirstCar(CarArrives(c1, q1)) =

```
if (IsEmpty(q1) == true)
    then c1;
else FirstCar(q1);
```

```
Equal(New, New) = true;
Equal(New, CarArrives(c1, q1)) = false;
Equal(CarArrives(c1, q1), New) = false;
Equal(CarArrives(c1, q1), CarArrives(c2, q2)) =
    if (NumberOfCars(q1) == NumberOfCars(q2))
        then true;
    else false;
```

```
WhichQueue(New, New, c3) = 0;
WhichQueue(CarArrives(c1, q1), New, c3) =
    if (c1 == c3) then 1;
    else WhichQueue(q1, New, c3);
```

(better !!)

```
WhichQueue(New, CarArrives(c1, q1), c3) =
    if (c1 == c3) then 2;
    else WhichQueue(New, q1, c3);
```

(Fix This !!)

```
WhichQueue(CarArrives(c1, q1), CarArrives(c2, q2), c3) =
    if (c1 == c3) then 1;
    else
        if (c2 == c3) then 2;
        else WhichQueue(q1, q2, c3);
```

```
Position (c1, New) = -1;
```

```
Position (c1, CarArrives(c2, q2)) =  
  if (c1 = c2) then NumberOfCars(q2);  
  else Position (c1, q2);  
end QueueOfCars;
```

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**ECE 321 (LEC A1 Fa18)**

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