**Results Report**

**C Option:**

The code was run 5 times and results were calculated.

**Output Obtained during 5 runs:**

**First:**

Start Time : Fri Sep 20 19:01:49 2019

Inserted vehicle in TieStack :tieA

Inserted vehicle in TieStack :tieB

Inserted vehicle in StarStack :starA

Inserted vehicle in TieStack :tieC

Vehicle poped out of stack: starA

Vehicle Type: Star Destroyer

Vehicle Name: starA

Start Time: Fri Sep 20 19:01:49 2019

Finish Time Fri Sep 20 19:01:56 2019

Time to repair: 7.00603s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieD

Inserted vehicle in StarStack :starB

Inserted vehicle in TieStack :tieE

Inserted vehicle in TieStack :tieF

Vehicle poped out of stack: starB

Vehicle Type: Star Destroyer

Vehicle Name: starB

Start Time: Fri Sep 20 19:01:58 2019

Finish Time Fri Sep 20 19:02:05 2019

Time to repair: 7.00012s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieG

Inserted vehicle in TieStack :tieH

Inserted vehicle in TieStack :tieI

Inserted vehicle in TieStack :tieJ

Vehicle poped out of stack: tieJ

Vehicle Type: Tie Fighter

Vehicle Name: tieJ

Start Time: Fri Sep 20 19:02:07 2019

Finish Time Fri Sep 20 19:02:10 2019

Time to repair: 3.01s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieK

Inserted vehicle in TieStack :tieL

Inserted vehicle in TieStack :tieM

Inserted vehicle in TieStack :tieN

Vehicle poped out of stack: tieN

Vehicle Type: Tie Fighter

Vehicle Name: tieN

Start Time: Fri Sep 20 19:02:12 2019

Finish Time Fri Sep 20 19:02:15 2019

Time to repair: 3.00288s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieO

Inserted vehicle in TieStack :tieP

Inserted vehicle in TieStack :tieQ

Inserted vehicle in StarStack :starC

Vehicle poped out of stack: starC

Vehicle Type: Star Destroyer

Vehicle Name: starC

Start Time: Fri Sep 20 19:02:17 2019

Finish Time Fri Sep 20 19:02:24 2019

Time to repair: 7.00308s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieR

Inserted vehicle in TieStack :tieS

Inserted vehicle in TieStack :tieT

Inserted vehicle in TieStack :tieU

Vehicle poped out of stack: tieU

Vehicle Type: Tie Fighter

Vehicle Name: tieU

Start Time: Fri Sep 20 19:02:26 2019

Finish Time Fri Sep 20 19:02:29 2019

Time to repair: 3.0062s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieV

Inserted vehicle in StarStack :starD

Space is full. Kindly direct towards repair facility in the Dagaba system

VehicletieWhas ben rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

VehicletieXhas ben rejected

Vehicle poped out of stack: starD

Vehicle Type: Star Destroyer

Vehicle Name: starD

Start Time: Fri Sep 20 19:02:31 2019

Finish Time Fri Sep 20 19:02:38 2019

Time to repair: 7.01159s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieY

Space is full. Kindly direct towards repair facility in the Dagaba system

VehicletieZhas ben rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

VehicletieAhas ben rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

VehicletieBhas ben rejected

Total Star Destroyers Repaired: 4

Total Tie Destroyers Repaired: 3

**Second:**

Start Time : Fri Sep 20 19:07:19 2019

Inserted vehicle in TieStack :tieA

Inserted vehicle in TieStack :tieB

Inserted vehicle in TieStack :tieC

Inserted vehicle in TieStack :tieD

Vehicle poped out of stack: tieD

Vehicle Type: Tie Fighter

Vehicle Name: tieD

Start Time: Fri Sep 20 19:07:19 2019

Finish Time Fri Sep 20 19:07:22 2019

Time to repair: 3.00385s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieE

Inserted vehicle in StarStack :starA

Inserted vehicle in TieStack :tieF

Inserted vehicle in TieStack :tieG

Vehicle poped out of stack: starA

Vehicle Type: Star Destroyer

Vehicle Name: starA

Start Time: Fri Sep 20 19:07:24 2019

Finish Time Fri Sep 20 19:07:31 2019

Time to repair: 7.00597s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieH

Inserted vehicle in TieStack :tieI

Inserted vehicle in StarStack :starB

Inserted vehicle in TieStack :tieJ

Vehicle poped out of stack: starB

Vehicle Type: Star Destroyer

Vehicle Name: starB

Start Time: Fri Sep 20 19:07:33 2019

Finish Time Fri Sep 20 19:07:40 2019

Time to repair: 7.01049s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieK

Inserted vehicle in TieStack :tieL

Inserted vehicle in TieStack :tieM

Inserted vehicle in TieStack :tieN

Vehicle poped out of stack: tieN

Vehicle Type: Tie Fighter

Vehicle Name: tieN

Start Time: Fri Sep 20 19:07:42 2019

Finish Time Fri Sep 20 19:07:45 2019

Time to repair: 3.00409s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in StarStack :starC

Inserted vehicle in TieStack :tieO

Inserted vehicle in TieStack :tieP

Inserted vehicle in TieStack :tieQ

Vehicle poped out of stack: starC

Vehicle Type: Star Destroyer

Vehicle Name: starC

Start Time: Fri Sep 20 19:07:47 2019

Finish Time Fri Sep 20 19:07:54 2019

Time to repair: 7.00545s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieR

Inserted vehicle in TieStack :tieS

Inserted vehicle in TieStack :tieT

Inserted vehicle in TieStack :tieU

Vehicle poped out of stack: tieU

Vehicle Type: Tie Fighter

Vehicle Name: tieU

Start Time: Fri Sep 20 19:07:56 2019

Finish Time Fri Sep 20 19:07:59 2019

Time to repair: 3.01357s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieV

Inserted vehicle in TieStack :tieW

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieX has ben rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieY has ben rejected

Vehicle poped out of stack: tieW

Vehicle Type: Tie Fighter

Vehicle Name: tieW

Start Time: Fri Sep 20 19:08:01 2019

Finish Time Fri Sep 20 19:08:04 2019

Time to repair: 3.00831s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in StarStack :starD

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieZ has ben rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieA has ben rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle starE has ben rejected

Total Star Destroyers Repaired: 3

Total Tie Destroyers Repaired: 4 **Third:**

Start Time : Fri Sep 20 19:09:48 2019

Inserted vehicle in StarStack :starA

Inserted vehicle in StarStack :starB

Inserted vehicle in TieStack :tieA

Inserted vehicle in TieStack :tieB

Vehicle poped out of stack: starB

Vehicle Type: Star Destroyer

Vehicle Name: starB

Start Time: Fri Sep 20 19:09:48 2019

Finish Time Fri Sep 20 19:09:55 2019

Time to repair: 7.00467s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieC

Inserted vehicle in StarStack :starC

Inserted vehicle in TieStack :tieD

Inserted vehicle in StarStack :starD

Vehicle poped out of stack: starD

Vehicle Type: Star Destroyer

Vehicle Name: starD

Start Time: Fri Sep 20 19:09:57 2019

Finish Time Fri Sep 20 19:10:04 2019

Time to repair: 7.01374s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieE

Inserted vehicle in TieStack :tieF

Inserted vehicle in TieStack :tieG

Inserted vehicle in TieStack :tieH

Vehicle poped out of stack: starC

Vehicle Type: Star Destroyer

Vehicle Name: starC

Start Time: Fri Sep 20 19:10:06 2019

Finish Time Fri Sep 20 19:10:13 2019

Time to repair: 7.00752s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieI

Inserted vehicle in TieStack :tieJ

Inserted vehicle in TieStack :tieK

Inserted vehicle in TieStack :tieL

Vehicle poped out of stack: starA

Vehicle Type: Star Destroyer

Vehicle Name: starA

Start Time: Fri Sep 20 19:10:15 2019

Finish Time Fri Sep 20 19:10:22 2019

Time to repair: 7.0128s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieM

Inserted vehicle in TieStack :tieN

Inserted vehicle in TieStack :tieO

Inserted vehicle in TieStack :tieP

Vehicle poped out of stack: tieP

Vehicle Type: Tie Fighter

Vehicle Name: tieP

Start Time: Fri Sep 20 19:10:24 2019

Finish Time Fri Sep 20 19:10:27 2019

Time to repair: 3.00337s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in StarStack :starE

Inserted vehicle in TieStack :tieQ

Inserted vehicle in TieStack :tieR

Inserted vehicle in StarStack :starF

Vehicle poped out of stack: starF

Vehicle Type: Star Destroyer

Vehicle Name: starF

Start Time: Fri Sep 20 19:10:29 2019

Finish Time Fri Sep 20 19:10:36 2019

Time to repair: 7.00694s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in StarStack :starG

Inserted vehicle in TieStack :tieS

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieT has ben rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle starH has ben rejected

Vehicle poped out of stack: starG

Vehicle Type: Star Destroyer

Vehicle Name: starG

Start Time: Fri Sep 20 19:10:38 2019

Finish Time Fri Sep 20 19:10:46 2019

Time to repair: 7.01069s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieU

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle starI has ben rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle starJ has ben rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieV has ben rejected

Vehicle poped out of stack: starE

Vehicle Type: Star Destroyer

Vehicle Name: starE

Start Time: Fri Sep 20 19:10:48 2019

Finish Time Fri Sep 20 19:10:55 2019

Time to repair: 7.01565s

Time consumed for preparation of facility: 2 seconds

Total Star Destroyers Repaired: 7

Total Tie Destroyers Repaired: 1

**Fourth:**

Start Time : Fri Sep 20 19:16:18 2019

Inserted vehicle in TieStack :tieA

Inserted vehicle in TieStack :tieB

Inserted vehicle in TieStack :tieC

Inserted vehicle in TieStack :tieD

Vehicle poped out of stack: tieD

Vehicle Type: Tie Fighter

Vehicle Name: tieD

Start Time: Fri Sep 20 19:16:18 2019

Finish Time Fri Sep 20 19:16:21 2019

Time to repair: 3.01545s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieE

Inserted vehicle in TieStack :tieF

Inserted vehicle in TieStack :tieG

Inserted vehicle in TieStack :tieH

Vehicle poped out of stack: tieH

Vehicle Type: Tie Fighter

Vehicle Name: tieH

Start Time: Fri Sep 20 19:16:23 2019

Finish Time Fri Sep 20 19:16:26 2019

Time to repair: 3.01196s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieI

Inserted vehicle in StarStack :starA

Inserted vehicle in StarStack :starB

Inserted vehicle in TieStack :tieJ

Vehicle poped out of stack: starB

Vehicle Type: Star Destroyer

Vehicle Name: starB

Start Time: Fri Sep 20 19:16:28 2019

Finish Time Fri Sep 20 19:16:35 2019

Time to repair: 7.01543s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieK

Inserted vehicle in StarStack :starC

Inserted vehicle in TieStack :tieL

Inserted vehicle in TieStack :tieM

Vehicle poped out of stack: starC

Vehicle Type: Star Destroyer

Vehicle Name: starC

Start Time: Fri Sep 20 19:16:37 2019

Finish Time Fri Sep 20 19:16:44 2019

Time to repair: 7.00253s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieN

Inserted vehicle in StarStack :starD

Inserted vehicle in TieStack :tieO

Inserted vehicle in TieStack :tieP

Vehicle poped out of stack: starD

Vehicle Type: Star Destroyer

Vehicle Name: starD

Start Time: Fri Sep 20 19:16:46 2019

Finish Time Fri Sep 20 19:16:53 2019

Time to repair: 7.00834s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieQ

Inserted vehicle in StarStack :starE

Inserted vehicle in StarStack :starF

Inserted vehicle in TieStack :tieR

Vehicle poped out of stack: starF

Vehicle Type: Star Destroyer

Vehicle Name: starF

Start Time: Fri Sep 20 19:16:55 2019

Finish Time Fri Sep 20 19:17:02 2019

Time to repair: 7.0014s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieS

Inserted vehicle in TieStack :tieT

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieU has been rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieV has been rejected

Vehicle poped out of stack: starE

Vehicle Type: Star Destroyer

Vehicle Name: starE

Start Time: Fri Sep 20 19:17:04 2019

Finish Time Fri Sep 20 19:17:11 2019

Time to repair: 7.0066s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieW

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle starG has been rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieX has been rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieY has been rejected

Vehicle poped out of stack: starA

Vehicle Type: Star Destroyer

Vehicle Name: starA

Start Time: Fri Sep 20 19:17:13 2019

Finish Time Fri Sep 20 19:17:20 2019

Time to repair: 7.00076s

Time consumed for preparation of facility: 2 seconds

Total Star Destroyers Repaired: 6

Total Tie Destroyers Repaired: 2

**Fifth:**

Start Time : Fri Sep 20 19:21:21 2019

Inserted vehicle in StarStack :starA

Inserted vehicle in TieStack :tieA

Inserted vehicle in StarStack :starB

Inserted vehicle in TieStack :tieB

Vehicle poped out of stack: starB

Vehicle Type: Star Destroyer

Vehicle Name: starB

Start Time: Fri Sep 20 19:21:21 2019

Finish Time Fri Sep 20 19:21:28 2019

Time to repair: 7.00944s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieC

Inserted vehicle in TieStack :tieD

Inserted vehicle in StarStack :starC

Inserted vehicle in StarStack :starD

Vehicle poped out of stack: starD

Vehicle Type: Star Destroyer

Vehicle Name: starD

Start Time: Fri Sep 20 19:21:30 2019

Finish Time Fri Sep 20 19:21:37 2019

Time to repair: 7.00157s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in StarStack :starE

Inserted vehicle in TieStack :tieE

Inserted vehicle in TieStack :tieF

Inserted vehicle in StarStack :starF

Vehicle poped out of stack: starF

Vehicle Type: Star Destroyer

Vehicle Name: starF

Start Time: Fri Sep 20 19:21:39 2019

Finish Time Fri Sep 20 19:21:46 2019

Time to repair: 7.01289s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieG

Inserted vehicle in StarStack :starG

Inserted vehicle in TieStack :tieH

Inserted vehicle in TieStack :tieI

Vehicle poped out of stack: starG

Vehicle Type: Star Destroyer

Vehicle Name: starG

Start Time: Fri Sep 20 19:21:48 2019

Finish Time Fri Sep 20 19:21:55 2019

Time to repair: 7.00156s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieJ

Inserted vehicle in StarStack :starH

Inserted vehicle in TieStack :tieK

Inserted vehicle in TieStack :tieL

Vehicle poped out of stack: starH

Vehicle Type: Star Destroyer

Vehicle Name: starH

Start Time: Fri Sep 20 19:21:57 2019

Finish Time Fri Sep 20 19:22:04 2019

Time to repair: 7.00055s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieM

Inserted vehicle in StarStack :starI

Inserted vehicle in TieStack :tieN

Inserted vehicle in TieStack :tieO

Vehicle poped out of stack: starI

Vehicle Type: Star Destroyer

Vehicle Name: starI

Start Time: Fri Sep 20 19:22:06 2019

Finish Time Fri Sep 20 19:22:13 2019

Time to repair: 7.01057s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in StarStack :starJ

Inserted vehicle in TieStack :tieP

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle starK has been rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieQ has been rejected

Vehicle poped out of stack: starJ

Vehicle Type: Star Destroyer

Vehicle Name: starJ

Start Time: Fri Sep 20 19:22:15 2019

Finish Time Fri Sep 20 19:22:22 2019

Time to repair: 7.00723s

Time consumed for preparation of facility: 2 seconds

Inserted vehicle in TieStack :tieR

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle starL has been rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieS has been rejected

Space is full. Kindly direct towards repair facility in the Dagaba system

Vehicle tieT has been rejected

Vehicle poped out of stack: starE

Vehicle Type: Star Destroyer

Vehicle Name: starE

Start Time: Fri Sep 20 19:22:24 2019

Finish Time Fri Sep 20 19:22:31 2019

Time to repair: 7.00158s

Time consumed for preparation of facility: 2 seconds

Total Star Destroyers Repaired: 8

Total Tie Destroyers Repaired: 0

**Results:**

Average number of Tie Fighters Repaired: 2

Average number of Star Destroyers Repaired: 5.6 = 7 approximately

On average 7.6 or 8 approximately vehicles are serviced.

**C+ Option:**

Since Tie fighters require 3 second to be repaired and star destroyers require 7 seconds to be repaired, so if the Emperor want to maximize the number of vehicles repaired prior to refusing 5 vehicles entry to the system, we should give priority to tie fighters to be repaired.

**If we give priority to Star destroyers:**

|  |  |  |
| --- | --- | --- |
| **Run** | **Star Destroyers Repaired** | **Tie Fighters**  **Repaired** |
| 1st | 4 | 3 |
| 2nd | 3 | 4 |
| 3rd | 7 | 1 |
| 4th | 6 | 2 |
| 5th | 8 | 0 |

Average number of Star Destroyers Repaired: 5.6 = 7 approximately

Average number of Tie Fighters Repaired: 2

On average 7.6 or 7 approximately vehicles are serviced.

**If we give priority to Tie Fighters:**

|  |  |  |
| --- | --- | --- |
| **Run** | **Star Destroyers Repaired** | **Tie Fighters Repaired** |
| 1st | 0 | 8 |
| 2nd | 0 | 8 |
| 3rd | 0 | 7 |
| 4th | 0 | 8 |
| 5th | 0 | 8 |

Average number of Tie Fighters Repaired: 7.8 = 8 approximately

Average number of Star Destroyers Repaired: 0

On average 7.8 or 8 approximately vehicles are serviced.

Clearly, after seeing the results, it is concluded that giving priority to the tie fighters will not be a good option. Since tie fighters require less time (3 seconds) as compared to star destroyers and due to the condition, out of 4 destroyers 3 should be tie fighters and 1star destroyer, star destroyers would always be ignored and only tie fighters would get repaired.

**B Option:**

**If priority is given to Star Destroyers:**

**Results:**

|  |  |  |
| --- | --- | --- |
| **Run** | **Star Destroyers Repaired** | **Tie Fighters Repaired** |
| 1st | 7 | 1 |
| 2nd | 7 | 1 |
| 3rd | 8 | 0 |
| 4th | 7 | 1 |
| 5th | 7 | 1 |

Average number of Star Destroyers Repaired: 7.2 = 7 approximately

Average number of Tie Fighters Repaired: 0.8 = 1 approximately

On average 8 approximately vehicles are serviced.

**If priority is Given to Tie Fighters:**

|  |  |  |
| --- | --- | --- |
| **Run** | **Star Destroyers Repaired** | **Tie Fighters Repaired** |
| 1st | 0 | 8 |
| 2nd | 0 | 8 |
| 3rd | 0 | 8 |
| 4th | 0 | 8 |
| 5th | 0 | 8 |

Average number of Tie Fighters Repaired: 8

Average number of Star Destroyers Repaired: 0

On average 7.8 or 8 approximately vehicles are serviced.

Clearly, after seeing the results, it is concluded that giving priority to the tie fighters will not be a good option. Since tie fighters require less time (1,2,3) as compared to star destroyers (2,3,4,5,6,7) and due to the condition, out of 4 destroyers 3 should be tie fighters and 1star destroyer, star destroyers would always be ignored and only tie fighters would get repaired.

**A Option:**

**Results:**

**If priority is Given to Star Destroyers:**

|  |  |  |
| --- | --- | --- |
| **Run** | **Star Destroyers Repaired** | **Tie Fighters Repaired** |
| 1st | 4 | 3 |
| 2nd | 7 | 1 |
| 3rd | 5 | 2 |
| 4th | 3 | 4 |
| 5th | 4 | 3 |

Average number of Star Destroyers Repaired: 4.6 = 5 approximately

Average number of Tie Fighters Repaired: 2.6 = 3 approximately

On average 7.2 or 7 approximately vehicles are serviced.

**If priority is Given to Tie Fighters:**

|  |  |  |
| --- | --- | --- |
| **Run** | **Star Destroyers Repaired** | **Tie Fighters Repaired** |
| 1st | 0 | 8 |
| 2nd | 0 | 8 |
| 3rd | 0 | 8 |
| 4th | 0 | 7 |
| 5th | 0 | 8 |

Average number of Tie Fighters Repaired: 7.8 = 8 approximately

Average number of Star Destroyers Repaired: 0

On average 7.8 or 8 approximately vehicles are serviced.

Clearly, after seeing the results, it is concluded that giving priority to the tie fighters will not be a good option. Since tie fighters require less time mostly as compared to star destroyers. And due to the condition, out of 4 destroyers 3 should be tie fighters and 1star destroyer, star destroyers would always be ignored and only tie fighters would get repaired despite of their random generation of required.

**A+ Option:**

**If we give priority to tie fighters:**

Average shortest time spent in the repair facility (Tie Fighters): 1.6

Average longest time spent in the repair facility (Tie Fighters): 3

Average shortest time spent in the repair facility (Star Destroyers): 3.6

Average longest time spent in the repair facility (Star Destroyers): 6.3

**How many vehicles remain in each stack at the time the simulation is terminated?**

Tie Fighter: 20

Star Destroyers: 20

**Which is the best strategy and why!**

**If priority is given to star destroyers,** then by seeing the above recorded data, B option will be the best choice. Because on average, a greater number of star destroyers are being repaired and also the average of number of vehicles being serviced is a bit higher than other options.

If priority is given to tie fighters, then in every case, results are almost similar. So, we can use any of the methods if priority is given to tie fighters.