A priority queue for a simplified agenda manager in a rulebased expert system shell

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1.Objective:

To implement a simplified agenda manager for a priority queue system .The agenda manager takes a file name as input from user and should read the contents of the file line by line. Each line of the file is a list of ordered pairs (x, y) where x is a rule and y is a priority.An agenda manager should determine the rule with highest priority execute it and remove it from the list.

2. Program Description

Read from file:

The program takes the input from the user who specifies the path of the file from which the data should be read from. If the file is in the specified location it reads the input from it if not displays an error message saying that the file is not found and abruptly terminates.

Buildheap:

This method is called after reading line from the input file then after parsing the input to get a in value for priority and rule name, it builds a heap.

Heapify:

This method is used by the build heap method to maintain the heap property with the root node having the largest value

Heap extract max:

Returns the rule with the highest priority if the heap is not empty

Insert:

Adds a new rule name and its priority value to the queue

Heap remove:

After the rule with max priority is executed this method removes the rule from the queue and reduces the size of the heap

Note: This program runs until 30 cycles

3. Steps to Run the program:

- Extract the zip folder and open the program Agendamanager.java in ide like net beans on eclipse Click run
- When asked to enter the path of the file which has the rules to be read enter its absolute path

```
run:
enter the name of the path of the file
C:\Users\naimi\Desktop\agendamanager\test\test1.txt
```

 After entering path press enter to see the results of the rules executed in the agenda manager according to priority



4.Results

4.1File1: test1.txt

```
----- cycle number 1----
contents of Agenda manager in the cycle
(R90,90)
(R76,76)
(R80,80)
```

```
(R360,60)
(R75,75)
(R60,60)
(R260,60)
(R10,10)
(R210,10)
(R5,5)
(R35,35)
(R20,20)
the rule deleted is R90 and the priority is 90
----- cycle number 2----
contents of Agenda manager in the cycle
(R80,80)
(R76,76)
(R360,60)
(R75,75)
(R60,60)
(R260,60)
(R10,10)
(R210,10)
(R5,5)
(R35,35)
(R20,20)
(R15,15)
the rule deleted is R80 and the priority is 80
----- cycle number 3----
contents of Agenda manager in the cycle
(R76,76)
(R360,60)
(R75,75)
(R60,60)
(R260,60)
(R50,50)
(R210,10)
(R5,5)
(R35,35)
(R20,20)
(R15,15)
(R10,10)
the rule deleted is R76 and the priority is 76
----- cycle number 4----
contents of Agenda manager in the cycle
(R75,75)
(R360,60)
(R275,75)
```

```
(R260,60)
(R50,50)
(R60,60)
(R5,5)
(R35,35)
(R20,20)
(R15,15)
(R10,10)
(R210,10)
the rule deleted is R75 and the priority is 75
----- cycle number 5----
contents of Agenda manager in the cycle
(R80,80)
(R360,60)
(R275,75)
(R50,50)
(R60,60)
(R260,60)
(R35,35)
(R20,20)
(R15,15)
(R10,10)
(R210,10)
(R5,5)
(R55,55)
the rule deleted is R80 and the priority is 80
---- cycle number 6----
contents of Agenda manager in the cycle
(R275,75)
(R360,60)
(R55,55)
(R60,60)
(R260,60)
(R50,50)
(R20,20)
(R15,15)
(R10,10)
(R210,10)
(R5,5)
(R35,35)
(R3,3)
the rule deleted is R275 and the priority is 75
----- cycle number 7----
contents of Agenda manager in the cycle
(R360,60)
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```
(R260,60)
(R60,60)
(R55,55)
(R50,50)
(R20,20)
(R15,15)
(R10,10)
(R210,10)
(R5,5)
(R35,35)
(R3,3)
(R310,10)
the rule deleted is R360 and the priority is 60
---- cycle number 8----
contents of Agenda manager in the cycle
(R95,95)
(R60,60)
(R260,60)
(R50,50)
(R35,35)
(R55,55)
(R10,10)
(R210,10)
(R5,5)
(R20,20)
(R3,3)
(R310,10)
(R15,15)
the rule deleted is R95 and the priority is 95
---- cycle number 9----
contents of Agenda manager in the cycle
(R60,60)
(R260,60)
(R59,59)
(R56,56)
(R55,55)
(R50,50)
(R58,58)
(R255,55)
(R54,54)
(R3,3)
(R310,10)
(R15,15)
(R10,10)
(R210,10)
(R57,57)
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(R5,5)
(R35,35)
(R20,20)
(R53,53)
the rule deleted is R60 and the priority is 60
----- cycle number 10----
contents of Agenda manager in the cycle
(R260,60)
(R59,59)
(R57,57)
(R55,55)
(R50,50)
(R58,58)
(R56,56)
(R54,54)
(R53,53)
(R310,10)
(R15,15)
(R10,10)
(R210,10)
(R255,55)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
the rule deleted is R260 and the priority is 60
----- cycle number 11----
contents of Agenda manager in the cycle
(R60,60)
(R59,59)
(R56,56)
(R57,57)
(R58,58)
(R55,55)
(R54,54)
(R53,53)
(R50,50)
(R15,15)
(R10,10)
(R210,10)
(R255,55)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
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(R3,3)
(R310,10)
the rule deleted is R60 and the priority is 60
----- cycle number 12----
contents of Agenda manager in the cycle
(R90,90)
(R59,59)
(R57,57)
(R58,58)
(R55,55)
(R255,55)
(R53,53)
(R50,50)
(R56,56)
(R10,10)
(R210,10)
(R54,54)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
(R310,10)
(R15,15)
the rule deleted is R90 and the priority is 90
----- cycle number 13----
contents of Agenda manager in the cycle
(R59,59)
(R57,57)
(R58,58)
(R56,56)
(R255,55)
(R53,53)
(R50,50)
(R55,55)
(R15,15)
(R210,10)
(R54,54)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
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(R2,1)
(R1,1)
the rule deleted is R59 and the priority is 59
----- cycle number 14----
contents of Agenda manager in the cycle
(R58,58)
(R57,57)
(R56,56)
(R255,55)
(R53,53)
(R50,50)
(R55,55)
(R15,15)
(R210,10)
(R54,54)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R58 and the priority is 58
----- cycle number 15----
contents of Agenda manager in the cycle
(R57,57)
(R56,56)
(R255,55)
(R53,53)
(R50,50)
(R55,55)
(R15,15)
(R210,10)
(R54,54)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
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(R1,1)
the rule deleted is R57 and the priority is 57
----- cycle number 16----
contents of Agenda manager in the cycle
(R56,56)
(R255,55)
(R53,53)
(R50,50)
(R55,55)
(R15,15)
(R210,10)
(R54,54)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R56 and the priority is 56
----- cycle number 17----
contents of Agenda manager in the cycle
(R255,55)
(R53,53)
(R50,50)
(R55,55)
(R15,15)
(R210,10)
(R54,54)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R255 and the priority is 55
----- cycle number 18----
contents of Agenda manager in the cycle
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```
(R55,55)
(R50,50)
(R53,53)
(R15,15)
(R210,10)
(R54,54)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R55 and the priority is 55
---- cycle number 19----
contents of Agenda manager in the cycle
(R53,53)
(R50,50)
(R15,15)
(R210,10)
(R54,54)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R53 and the priority is 53
----- cycle number 20----
contents of Agenda manager in the cycle
(R50,50)
(R15,15)
(R210,10)
(R54,54)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
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(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R50 and the priority is 50
----- cycle number 21----
contents of Agenda manager in the cycle
(R54,54)
(R210,10)
(R15,15)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R54 and the priority is 54
----- cycle number 22----
contents of Agenda manager in the cycle
(R15,15)
(R210,10)
(R5,5)
(R35,35)
(R20,20)
(R220,20)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R15 and the priority is 15
----- cycle number 23----
contents of Agenda manager in the cycle
(R35,35)
(R5,5)
(R210,10)
(R20,20)
(R220,20)
(R3,3)
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```
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R35 and the priority is 35
----- cycle number 24----
contents of Agenda manager in the cycle
(R20,20)
(R210,10)
(R5,5)
(R220,20)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R20 and the priority is 20
----- cycle number 25----
contents of Agenda manager in the cycle
(R220,20)
(R5,5)
(R210,10)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R220 and the priority is 20
----- cycle number 26----
contents of Agenda manager in the cycle
(R210,10)
(R5,5)
(R3,3)
(R310,10)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R210 and the priority is 10
----- cycle number 27----
contents of Agenda manager in the cycle
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(R310,10)
(R3,3)
(R5,5)
(R10,10)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R310 and the priority is 10
----- cycle number 28----
contents of Agenda manager in the cycle
(R10,10)
(R5,5)
(R3,3)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R10 and the priority is 10
----- cycle number 29----
contents of Agenda manager in the cycle
(R5,5)
(R3,3)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R5 and the priority is 5
----- cycle number 30----
contents of Agenda manager in the cycle
(R3,3)
(R1,1)
(R2,1)
(R1,1)
the rule deleted is R3 and the priority is 3
The process started at 1478231457869
inference ends at cycle30
total time taken to execute 0.014 Secs
4.2.Filename:test2.txt
----- cycle number 1----
contents of Agenda manager in the cycle
(r15,15)
(r2,2)
the rule deleted is r15 and the priority is 15
```

```
----- cycle number 2----
contents of Agenda manager in the cycle
(r20,20)
(r2,2)
the rule deleted is r20 and the priority is 20
---- cycle number 3----
contents of Agenda manager in the cycle
(r100,100)
(r2,2)
the rule deleted is r100 and the priority is 100
----- cycle number 4----
contents of Agenda manager in the cycle
(r2,2)
(r0,0)
the rule deleted is r2 and the priority is 2
----- cycle number 5----
contents of Agenda manager in the cycle
(r100,100)
(r103,100)
(r102,100)
(r0,0)
the rule deleted is r100 and the priority is 100
---- cycle number 6----
contents of Agenda manager in the cycle
(r103,100)
(r102,100)
(r0,0)
(r104,100)
the rule deleted is r103 and the priority is 100
----- cycle number 7----
contents of Agenda manager in the cycle
(r102,100)
(r105,100)
(r104,100)
(r0,0)
the rule deleted is r102 and the priority is 100
---- cycle number 8----
contents of Agenda manager in the cycle
(r105,100)
(r104,100)
(r0,0)
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```
(r28,28)
(r19,19)
(r02,0)
the rule deleted is r105 and the priority is 100
---- cycle number 9----
contents of Agenda manager in the cycle
(r104,100)
(r19,19)
(r35,35)
(r0,0)
(r02,0)
(r28,28)
the rule deleted is r104 and the priority is 100
----- cycle number 10----
contents of Agenda manager in the cycle
(r35,35)
(r28,28)
(r20,20)
(r02,0)
(r19,19)
(r0,0)
the rule deleted is r35 and the priority is 35
----- cycle number 11----
contents of Agenda manager in the cycle
(r28,28)
(r20,20)
(rule2,2)
(r19,19)
(r0,0)
(r02,0)
the rule deleted is r28 and the priority is 28
----- cycle number 12----
contents of Agenda manager in the cycle
(r80,80)
(r16,16)
(r20,20)
(rule2,2)
(r02,0)
(r15,15)
(r19,19)
(r0,0)
the rule deleted is r80 and the priority is 80
----- cycle number 13----
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contents of Agenda manager in the cycle
(r20,20)
(r16,16)
(r19,19)
(r13,13)
(r15,15)
(rule2,2)
(r0,0)
(r02,0)
the rule deleted is r20 and the priority is 20
----- cycle number 14----
contents of Agenda manager in the cycle
(r100,100)
(r19,19)
(r13,13)
(r16,16)
(rule2,2)
(r0,0)
(r02,0)
(r15,15)
the rule deleted is r100 and the priority is 100
----- cycle number 15----
contents of Agenda manager in the cycle
(r100,100)
(r99,99)
(r16,16)
(r19,19)
(r30,30)
(r02,0)
(r15,15)
(rule2,2)
(r13,13)
(r0,0)
the rule deleted is r100 and the priority is 100
----- cycle number 16----
contents of Agenda manager in the cycle
(r99,99)
(r88,88)
(r99,99)
(r30,30)
(r16,16)
(r19,19)
(rule2,2)
(r13,13)
(r0,0)
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```
(r02,0)
(r5,5)
(r15,15)
the rule deleted is r99 and the priority is 99
----- cycle number 17----
contents of Agenda manager in the cycle
(r99,99)
(r88,88)
(r70,70)
(r16,16)
(r19,19)
(r55,55)
(r13,13)
(r0,0)
(r02,0)
(r5,5)
(r15,15)
(rule2,2)
(r30,30)
the rule deleted is r99 and the priority is 99
----- cycle number 18----
contents of Agenda manager in the cycle
(r88,88)
(r70,70)
(r45,45)
(r19,19)
(r55,55)
(r30,30)
(r0,0)
(r02,0)
(r5,5)
(r15,15)
(rule2,2)
(r16,16)
(r13,13)
the rule deleted is r88 and the priority is 88
----- cycle number 19----
contents of Agenda manager in the cycle
(r70,70)
(r55,55)
(r19,19)
(r45,45)
(r30,30)
(r13,13)
(r02,0)
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(r5,5)
(r15,15)
(rule2,2)
(r16,16)
(r0,0)
(rr1,0)
the rule deleted is r70 and the priority is 70
----- cycle number 20----
contents of Agenda manager in the cycle
(r55,55)
(r30,30)
(r45,45)
(r19,19)
(r16,16)
(r02,0)
(r5,5)
(r15,15)
(rule2,2)
(r13,13)
(r0,0)
(rr1,0)
(rr2,0)
the rule deleted is r55 and the priority is 55
----- cycle number 21----
contents of Agenda manager in the cycle
(r45,45)
(r30,30)
(r19,19)
(r16,16)
(r02,0)
(r5,5)
(r15,15)
(rule2,2)
(r13,13)
(r0,0)
(rr1,0)
(rr2,0)
(rr3,0)
the rule deleted is r45 and the priority is 45
----- cycle number 22----
contents of Agenda manager in the cycle
(r30,30)
(r19,19)
(r16,16)
(r13,13)
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(r5,5)
(r15,15)
(rule2,2)
(r02,0)
(r0,0)
(rr1,0)
(rr2,0)
(rr3,0)
(rr4,0)
the rule deleted is r30 and the priority is 30
----- cycle number 23----
contents of Agenda manager in the cycle
(r19,19)
(r16,16)
(r13,13)
(r5,5)
(r15,15)
(rule2,2)
(r02,0)
(r0,0)
(rr1,0)
(rr2,0)
(rr3,0)
(rr4,0)
(rr5,0)
the rule deleted is r19 and the priority is 19
----- cycle number 24----
contents of Agenda manager in the cycle
(r16,16)
(r15,15)
(r5,5)
(r13,13)
(rule2,2)
(r02,0)
(r0,0)
(rr1,0)
(rr2,0)
(rr3,0)
(rr4,0)
(rr5,0)
(rr6,0)
the rule deleted is r16 and the priority is 16
----- cycle number 25----
contents of Agenda manager in the cycle
(r15,15)
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(r13,13)
(rule2,2)
(r02,0)
(r0,0)
(rr1,0)
(rr2,0)
(rr3,0)
(rr4,0)
(rr5,0)
(rr6,0)
(rr7,0)
the rule deleted is r15 and the priority is 15
----- cycle number 26----
contents of Agenda manager in the cycle
(r13,13)
(r5,5)
(rule2,2)
(r02,0)
(r0,0)
(rr1,0)
(rr2,0)
(rr3,0)
(rr4,0)
(rr5,0)
(rr6,0)
(rr7,0)
(rr8,0)
the rule deleted is r13 and the priority is 13
----- cycle number 27----
contents of Agenda manager in the cycle
(r5,5)
(rule2,2)
(r02,0)
(r0,0)
(rr1,0)
(rr2,0)
(rr3,0)
(rr4,0)
(rr5,0)
(rr6,0)
(rr7,0)
(rr8,0)
(rr9,0)
the rule deleted is r5 and the priority is 5
```

(r5,5)

```
----- cycle number 28----
contents of Agenda manager in the cycle
(rule2,2)
(r02,0)
(r0,0)
(rr1,0)
(rr2,0)
(rr3,0)
(rr4,0)
(rr5,0)
(rr6,0)
(rr7,0)
(rr8,0)
(rr9,0)
(rr10,0)
the rule deleted is rule2 and the priority is 2
----- cycle number 29----
contents of Agenda manager in the cycle
(r02,0)
(r0,0)
(rr1,0)
(rr2,0)
(rr3,0)
(rr4,0)
(rr5,0)
(rr6,0)
(rr7,0)
(rr8,0)
(rr9,0)
(rr10,0)
(rr11,0)
the rule deleted is r02 and the priority is 0
----- cycle number 30----
contents of Agenda manager in the cycle
(r0,0)
(rr1,0)
(rr2,0)
(rr3,0)
(rr4,0)
(rr5,0)
(rr6,0)
(rr7,0)
(rr8,0)
(rr9,0)
(rr10,0)
(rr11,0)
```

```
(rr12,0)
the rule deleted is r0 and the priority is 0
The process started at 1478231586674
inference ends at cycle30
total time taken to execute0.015 Secs
```

4.3. Filename: test3.txt

enter the path of the file which has the rules C:\Users\naimi\Desktop\agendamanager\test\test3.txt

```
----- cycle number 1----
contents of Agenda manager in the cycle
(r30,30)
(r29,29)
(r23,23)
(r28,28)
(r27,27)
(r19,19)
(r22,22)
(r20,20)
(r15,15)
(r26,26)
(r25,25)
(r18,18)
(r14,14)
(r17,17)
(r21,21)
(r4,4)
(r11,11)
(r7,7)
(r8,8)
(r1,1)
(r9,9)
(r6,6)
(r24,24)
(r16,16)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r12,12)
the rule deleted is r30 and the priority is 30
----- cycle number 2----
contents of Agenda manager in the cycle
(r29,29)
```

```
(r24,24)
(r28,28)
(r27,27)
(r23,23)
(r22,22)
(r21,21)
(r15,15)
(r26,26)
(r25,25)
(r19,19)
(r14,14)
(r17,17)
(r20,20)
(r4,4)
(r11,11)
(r7,7)
(r8,8)
(r1,1)
(r9,9)
(r6,6)
(r18,18)
(r16,16)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r12,12)
the rule deleted is r29 and the priority is 29
----- cycle number 3----
contents of Agenda manager in the cycle
(r100,100)
(r28,28)
(r27,27)
(r25,25)
(r22,22)
(r21,21)
(r24,24)
(r26,26)
(r23,23)
(r19,19)
(r16,16)
(r17,17)
(r20,20)
(r15,15)
(r11,11)
(r7,7)
```

```
(r8,8)
(r1,1)
(r9,9)
(r6,6)
(r18,18)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r12,12)
(r4,4)
the rule deleted is r100 and the priority is 100
----- cycle number 4----
contents of Agenda manager in the cycle
(r35,35)
(r27,27)
(r28,28)
(r23,23)
(r21,21)
(r24,24)
(r26,26)
(r22,22)
(r19,19)
(r18,18)
(r17,17)
(r20,20)
(r15,15)
(r25,25)
(r7,7)
(r8,8)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r12,12)
(r4,4)
(r11,11)
the rule deleted is r35 and the priority is 35
```

```
----- cycle number 5----
contents of Agenda manager in the cycle
(r28,28)
(r27,27)
(r26,26)
(r21,21)
(r24,24)
(r23,23)
(r22,22)
(r19,19)
(r18,18)
(r17,17)
(r20,20)
(r15,15)
(r25,25)
(r7,7)
(r8,8)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r12,12)
(r4,4)
(r11,11)
the rule deleted is r28 and the priority is 28
---- cycle number 6----
contents of Agenda manager in the cycle
(r27,27)
(r26,26)
(r25,25)
(r24,24)
(r23,23)
(r21,21)
(r19,19)
(r18,18)
(r17,17)
(r20,20)
(r15,15)
(r22,22)
(r7,7)
(r8,8)
```

```
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r12,12)
(r4,4)
(r11,11)
the rule deleted is r27 and the priority is 27
----- cycle number 7----
contents of Agenda manager in the cycle
(r100,100)
(r25,25)
(r26,26)
(r23,23)
(r22,22)
(r24,24)
(r18,18)
(r17,17)
(r20,20)
(r15,15)
(r21,21)
(r12,12)
(r19,19)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r100 and the priority is 100
---- cycle number 8----
contents of Agenda manager in the cycle
```

(r1,1)

```
(r26,26)
(r25,25)
(r23,23)
(r22,22)
(r24,24)
(r18,18)
(r17,17)
(r20,20)
(r15,15)
(r21,21)
(r12,12)
(r19,19)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r26 and the priority is 26
---- cycle number 9----
contents of Agenda manager in the cycle
(r25,25)
(r23,23)
(r22,22)
(r24,24)
(r18,18)
(r17,17)
(r20,20)
(r15,15)
(r21,21)
(r12,12)
(r19,19)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
```

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(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r25 and the priority is 25
----- cycle number 10----
contents of Agenda manager in the cycle
(r24,24)
(r22,22)
(r23,23)
(r18,18)
(r17,17)
(r20,20)
(r15,15)
(r21,21)
(r12,12)
(r19,19)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r24 and the priority is 24
----- cycle number 11----
contents of Agenda manager in the cycle
(r23,23)
(r22,22)
(r18,18)
(r17,17)
(r20,20)
(r15,15)
(r21,21)
(r12,12)
(r19,19)
```

```
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r23 and the priority is 23
----- cycle number 12----
contents of Agenda manager in the cycle
(r22,22)
(r18,18)
(r17,17)
(r20,20)
(r15,15)
(r21,21)
(r12,12)
(r19,19)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r22 and the priority is 22
----- cycle number 13----
contents of Agenda manager in the cycle
(r20,20)
(r17,17)
(r18,18)
(r15,15)
```

```
(r21,21)
(r12,12)
(r19,19)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r20 and the priority is 20
----- cycle number 14----
contents of Agenda manager in the cycle
(r18,18)
(r17,17)
(r15,15)
(r21,21)
(r12,12)
(r19,19)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r18 and the priority is 18
----- cycle number 15----
contents of Agenda manager in the cycle
(r21,21)
(r15,15)
(r17,17)
```

```
(r12,12)
(r19,19)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r21 and the priority is 21
----- cycle number 16----
contents of Agenda manager in the cycle
(r17,17)
(r15,15)
(r12,12)
(r19,19)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r17 and the priority is 17
----- cycle number 17----
contents of Agenda manager in the cycle
(r19,19)
(r12,12)
(r15,15)
(r1,1)
(r9,9)
(r6,6)
```

```
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r19 and the priority is 19
----- cycle number 18----
contents of Agenda manager in the cycle
(r15,15)
(r12,12)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r15 and the priority is 15
---- cycle number 19----
contents of Agenda manager in the cycle
(r12,12)
(r1,1)
(r9,9)
(r6,6)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
```

(r16,16)

```
(r11,11)
(r8,8)
the rule deleted is r12 and the priority is 12
----- cycle number 20----
contents of Agenda manager in the cycle
(r6,6)
(r9,9)
(r1,1)
(r16,16)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r6 and the priority is 6
----- cycle number 21----
contents of Agenda manager in the cycle
(r16,16)
(r1,1)
(r9,9)
(r14,14)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r16 and the priority is 16
----- cycle number 22----
contents of Agenda manager in the cycle
(r14,14)
(r9,9)
(r1,1)
(r10,10)
(r3,3)
(r2,2)
(r13,13)
```

```
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r14 and the priority is 14
----- cycle number 23----
contents of Agenda manager in the cycle
(r10,10)
(r1,1)
(r9,9)
(r3,3)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r10 and the priority is 10
----- cycle number 24----
contents of Agenda manager in the cycle
(r3,3)
(r9,9)
(r1,1)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r3 and the priority is 3
----- cycle number 25----
contents of Agenda manager in the cycle
(r9,9)
(r1,1)
(r2,2)
(r13,13)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r9 and the priority is 9
```

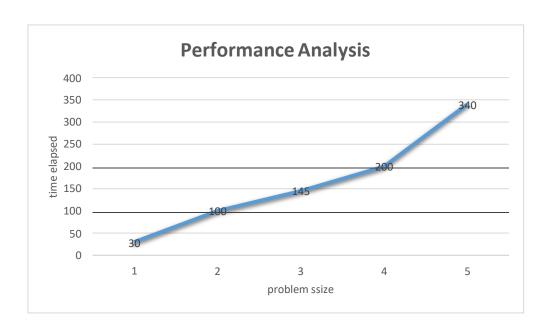
```
----- cycle number 26----
contents of Agenda manager in the cycle
(r13,13)
(r2,2)
(r1,1)
(r5,5)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r13 and the priority is 13
----- cycle number 27----
contents of Agenda manager in the cycle
(r5,5)
(r1,1)
(r2,2)
(r7,7)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r5 and the priority is 5
----- cycle number 28----
contents of Agenda manager in the cycle
(r7,7)
(r2,2)
(r1,1)
(r4,4)
(r11,11)
(r8,8)
the rule deleted is r7 and the priority is 7
----- cycle number 29----
contents of Agenda manager in the cycle
(r4,4)
(r1,1)
(r2,2)
(r11,11)
(r8,8)
the rule deleted is r4 and the priority is 4
---- cycle number 30----
contents of Agenda manager in the cycle
(r11,11)
(r2,2)
(r1,1)
```

(r8,8)
the rule deleted is r11 and the priority is 11
The process started at 1478231687787
inference ends at cycle30
total time taken to execute0.02 Secs

5.Performance Analysis

Problem size	timetaken
T TO STEET THE	timetaken.
30	28
100	56
145	90
200	136
340	200

5.1Graph



6.Output Screen shots

