Addignment - 13
the figure of the supplied that the same of the same o
Problem statement -
Write a JAVA program for the imple-
mentation of different data structures using
JAVA rollection libraries altered 5 data
structures, to be used to design a suitable
afsplication-
to be a first the second of th
Objective -
· To understand the use of JAVA collection
liberaries.
· To be able do une a JAVA library.
· To use TAVA collection for implementing
different types of data structures.
the second of th
Outcome -
THE COUNTY OF TH
ne will be able to mae JAVA rollection
tileraries in an afflication.
tileraries in an application.
tibraries in an afflication.  HIW & SIW Requirements -
H/W & 5/W Requirements - Dell Ofstifslese 3020 MT, monitors, keyboard.
tibraries in an afflication.  HIW & SIW Requirements -
HIW & SIW Requirements -  Dell Ofstiflese 3020 MT, monitores, keyboard, monde, Fedora 20 OS, Edifae.
HIW & 5/W Requirements -  Dell Ofstifslese 3020 MT, monitores, keyboard, monde, Fiedora 20 05, Edifore.
The JAVA rollections framework is a set of
Theory- The JAVA rollections framework is a set of reases and interfaces that implement rommonly remable rollection data atructures.
The JAVA rollections framework is a set of

Implementation for fundamental collection. The framework had to allow different types of collection to work in a similar manner with high degree of interoperability.

Types of interface -

- 1 Collection interface
- 1 List Interface
- 3 set
- 4 Linked scorted set
- @ Make
- 6 Mak Enley
- 9 dorted Make
- 1 Enumeration.

Paeudorode -

1) stack-

fullic void stack () {

Reint ("1. Push in 2. Pope in ");

in to so the war if

areful ( uh);

if ( -th == 1) Thosos subjection

st. fruch ( new Integer (x1. next Int ());

if (ch == 2)

ect. frof ();

if ( ch = = 3)

ind. freak ();

3

HAN & OVE OR WILL

2	
	frublic void Queuel) &
	Priority Queue < Integer> frq = new
	Priority Queue < Integer > C);
-	Print (" s. Add data in 2. Pote in
	3. Dixfolay head in 4. dize ");
	anefol (ch);
	if ( ch = = 1) was so many in a modelle
	frg. add ( new Integer ( sc. nest Int()));
	if ( ch = = 2)
	frg. froll();
. 4	if (-ch == 3)
	frg. freet ();
	if (ch = = 4) ( ) susual bisso sub
16-	fra. dire Min = De Kronit Finance
	Paron ("I. had France for End For Los (") hours
	Print "Invalid choice";
	1 (- Keeper Jacob )
	Receiped ( con);
3	Linked Lial -
	fullice void sinked () & the co
	Linked List < Integer > 1 = new Linked List
	( ) in the second of Integer > ();
	Print (" 1. Add First m 2. Add Last m.
	3. Remove First m 4. Remove Last in 5. Display
	2 iat ");
-	Aucefut ( un); ()
-1-1	if (ch == 1)
	1. add First (sc. next line ());

```
if ( ch = = 2)
          d. addlast ( ac. neset Int());
      if ( th = = 3)
         d. remove Fired ();
     if ( th = = 4)
        d. remove Last ();
     if ( ch = = 5)
       Softh (" contents of List - " + 1);
        Print (". Invalid choice");
 3
4. Array Deque-
       feublic void Dqueue () 2
   Array Deque < Integer > dg = new Array Deque < Integer > L);
Print ("1. Add First in 2. Add Last in 3. Diaplay head
     In 4. Diaplay Fail in 5. Remove First in
      6. Remove Last);
  Accept (th);
    if ( th == 1)
       dq. addtiræt (ac. next Inte ());
   rif (rh = = 2) or The sample to the down
      dg. add Laat ( ac. next Int ());
    Ef ( ah == 3) a
      dg. keek First ();
    if ( -h == 4)
       -dq. freeklast ();
    if (th = = 5)
                             1 - 255 ) 16
       -dq. from Fired ();
    if ( -ch = = 6)
      -dg. fell Laxtes;
```

1						
5.	Haxh det -	r 2 5 r	- transmit than	La Levines		
	gentelic void Hanhdet () ?					
	Haxhdet < Integer > hs = new flaxholet < Integer > ();					
	Print (" J. Add Element in 2. Remove element in					
	3. Dixfelay whole in 4. dize");					
	Arcefet (	( th);				
			I trease = :	J. Paraul		
4	hr. add ( kc. next Int ());					
			Trusters 0	The state of the s		
	hs. remove (sc. nesit Int());					
	if ( th = = 3) Soften (" Elements in Hash-" + hs);					
	if ( ch = = 4)					
and the same of				- marial		
	elae  frint ("Invalid choice!");					
	3		Jan M			
	7	2				
	Teat rage		later states			
	Lear Cage	2	bulete had	A particular and a part		
	Degrailtim	Infect	Expected OIP	Actual 01P		
	Description	Indeal	(7.AST 3.1.1)	Success		
3.	istack		The second secon			
		(1,3,6,7)	- I Trans ( (c. 2)	io a		
		Poterno	(1753 June 1			
Parks		Populari	75			
-	W. W.	Inacrt-9	975			
	Market Commencer	a would be a				

10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
2. Linked Lixt	Inacut -	1357	ducces
20 10 10 10 10 10 10 10 10 10 10 10 10 10	(1,3,5,7)		
Cax man >	Delete - 3	1570	La Comple
in me	Invert Last - 9	1579	
	Delete First -	1.5.7 9ier .	
		(1)	
3. Periority	Inact - 2	2	
Queue	Indert - 4	2 4	+
	Indert - 0	0 2 4	
	Inaert - 3	0234	
	Pop	023	
	Top with my	313	
		the state	
4. Array	Invert First-1	1. disc ().	
Degneue	Insert First-0	01	vermes
V	Indert Lant - 2	012	
	Head	0	
	Tail	2	
	Delde First		Lat ca
	Delete Last	2	
Reduct of	Lefected oin	- Turpus	
5. Haah	Invert (A,1)	Tracella	dunes
det	Inacrt (B, 2)	(B2	
	Fracer (A, 1)	Cannol	
1		Indert as	
	311	keyword alread	dy
1		escials	
M.	Remove (A)	B 2	
N N	Insert (C,3)	<b>C</b> 3	
	dize ()-	2	
	In the hours area	and the same of th	

	Collection Framework Hierarchy
	Iterable
	Collection
	Leat Queue det
Γ	
1	Array Liat Hach det
1	Periority
1	Linked Lixt - 1 Queue I_Linked
	- Dequeues Haah det
1	Vector
	seorted det
	Vatack Array Dequere
	Tree det
	+ - extends
	4 - implements
$\ $	Monchaion -
$\parallel$	We have successfully studied and implemented data atructures using JAVA library rollections.
	implemented data atructures wing JAVA library
$\parallel$	collections.