Ex No:	ARRAY LIST
DATE:	

AIM:

To develop a java application to maintain list of numbers using arraylist.

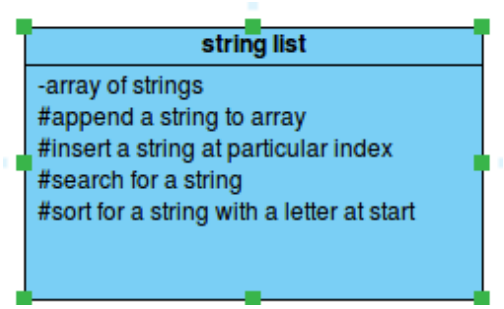
REQUIRMENT:

Develop a java application to create a package. String collections and create a class string list with the data members append abd at end.
Insert-add at particular index search.
Create a list all strings starts with given letter.

ALGORITHUM:

Step1: Develop package for string collection
Step2: Create a class name string list.
Step3: Declare a object with add at end, add at particular index, search.
Step4: Get the index from user.
Step4: print the list of strings starts with given letter.

CLASS DIAGRAM:



PROGRAMME:

```
/*
 * This program is maintain the list of numbers
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 *
 */
package stringcollection;

import java.util.*;



public class StringList {
```

```
	public static void main(String[] args) {
		int option;
		String n;
		int index,i;
		Scanner sc=new Scanner(System.in);
		ArrayList<String> str;


		str=new ArrayList<String>();
		while(true)
		{
			System.out.println("1. To add an Strings at the
end");
			System.out.println("2. To insert an Strings at
particular index");
			System.out.println("3. To search for a Strings");
			System.out.println("4. To display all the Strings");
			System.out.println("5. To display all the strings
with given letter");
			System.out.println("6. Exit:");
			System.out.print("Enter your choice:");

			option=sc.nextInt();
			switch(option)
			{
			case 1:
				System.out.print("Enter a String:");
				n=sc.next();
				str.add(n);
				System.out.println("The given String is
added at the end");
				break;
			case 2:
				System.out.print("Enter a String:");
				n=sc.next();
				System.out.print("Enter the index:");
				index=sc.nextInt();
				str.add(index,n);
				System.out.println("The given String is
added at the given index");
				break;
			case 3:
				System.out.print("Enter a String:");
				n=sc.next();
				index=str.indexOf(n);
				if(index<0)
				{
					System.out.println("The given String
is not available in the list");
```

```
                        }else
                        {
                                System.out.printf("The number %d is
found at the index %d\n",n,index);
                        }
                        break;
                case 4:
                        System.out.println("The available String
are:");
                        for(i=0;i<str.size();i++)


                        {
                                System.out.println(str.get(i));
                        }
                        break;
                case 5:
                {
                        System.out.println("enter string starting
letter");
                        n=sc.next();
                        for(i=0;i<str.size();i++)
                        {
                                if(str.get(i).startsWith(n)) {
                                        System.out.println(str.get(i));

                        }
                        }
                                break;
                        }
                case 6:
                        System.out.println("Thankyou for using
number list application !!!");
                        break;
                default:
                        System.out.println("Please enter a valid
number !!!");
                }

                if(option==6)
                {
                        break;

                }


        }
```

```
        }
        }
```

OUTPUT:

```
1. To add an Strings at the end
2. To insert an Strings at particular index
3. To search for a Strings
4. To display all the Strings
5. To display all the strings with given letter
6. Exit:
Enter your choice:1
Enter a String:pavi
The given String is added at the end
1. To add an Strings at the end
2. To insert an Strings at particular index
3. To search for a Strings
4. To display all the Strings
5. To display all the strings with given letter
6. Exit:
Enter your choice:1
Enter a String:sandy
The given String is added at the end
1. To add an Strings at the end
2. To insert an Strings at particular index
3. To search for a Strings
4. To display all the Strings
5. To display all the strings with given letter
6. Exit:
Enter your choice:1
Enter a String:vijay
The given String is added at the end
1. To add an Strings at the end
2. To insert an Strings at particular index
3. To search for a Strings
4. To display all the Strings
5. To display all the strings with given letter
6. Exit:
Enter your choice:4
The available String are:
pavi
sandy
vijay
1. To add an Strings at the end
2. To insert an Strings at particular index
3. To search for a Strings
4. To display all the Strings
5. To display all the strings with given letter
 6. Exit:
```

RESULT:

Thus the output of the java array list is verified.