

Linked List

Create linked list and fill it with letters from A to E then:

- Remove the letter C
- Remove the second element
- Remove the first element
- Add the letter F to the last
- Print the list

The screenshot shows a Java IDE window titled "lists - zin". The code defines a `LinkedList` class with a `main` method. The `main` method performs the following steps: 1. Creates a new `LinkedList` and adds elements "A", "B", "C", "D", and "E". 2. Prints the list, which outputs "[A, B, C, D, E]". 3. Removes the element "C". 4. Removes the element at index 1 (which is "D"). 5. Removes the first element ("A"). 6. Adds "F" to the last of the list. 7. Creates a `ListIterator` and prints each element, which outputs "D", "E", and "F".

```
import java.util.*;

public class lists
{
    public static void main( String [] args ){

        LinkedList <String> list = new LinkedList <String> ();

        list.add("A");
        list.add("B");
        list.add("C");
        list.add("D");
        list.add("E");

        System.out.println(list);

        list.remove("C");
        list.remove(1);
        list.removeFirst();
        list.addLast("F");

        ListIterator<String> itr = list.listIterator();

        while(itr.hasNext())
        {
            System.out.println(itr.next());
        }
    }
}
```

BlueJ: Terminal Window - z...

Options

[A, B, C, D, E]
D
E
F

File saved

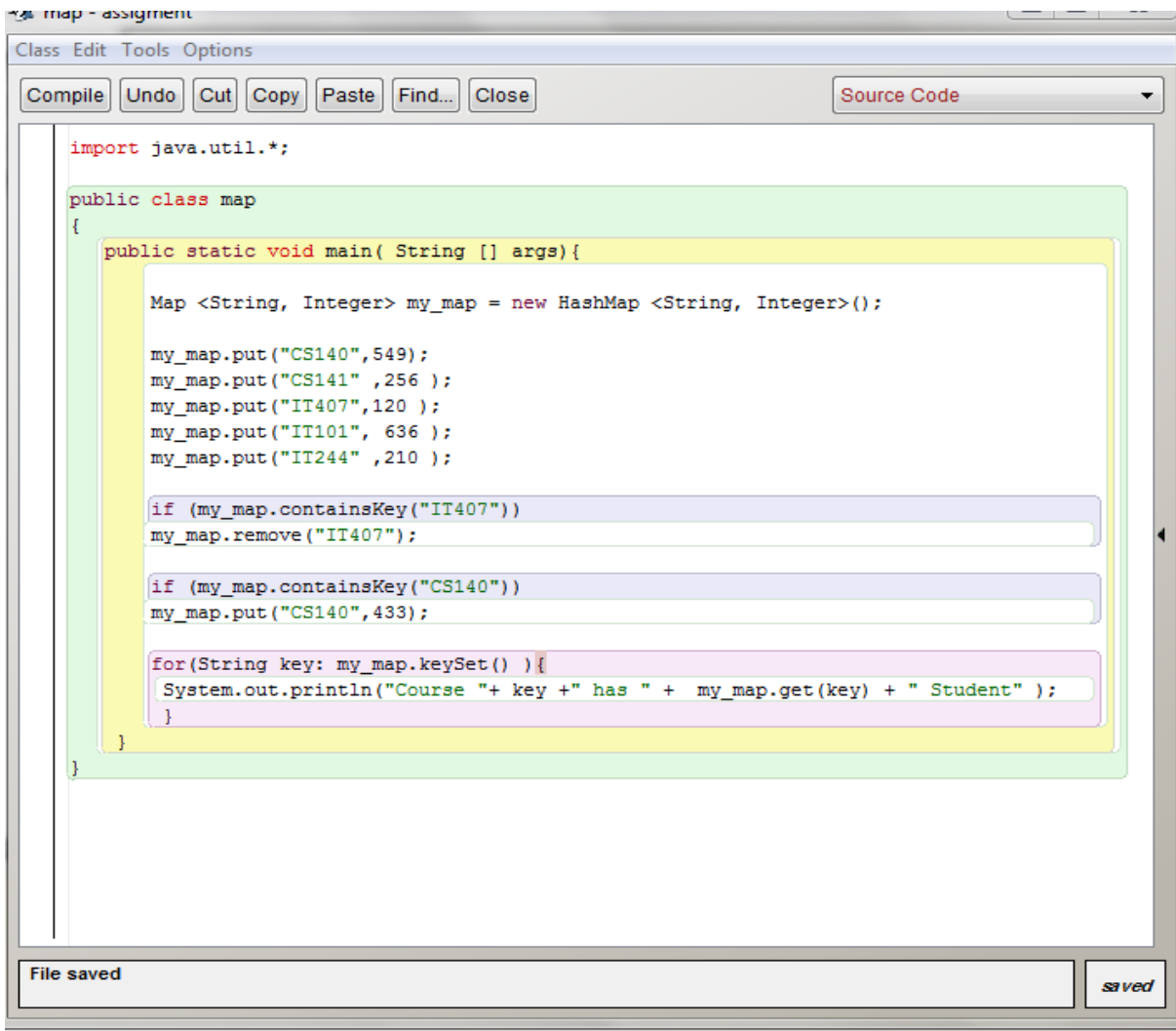
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Maps:

Suppose you have the following information about courses and the number of students in each course.

- 1- Write a program that store these information in a map
- 2- Remove the course IT407 with its associated value
- 3- Edit the number of students in CS140 to 433
- 4- Print all keys with their values as the following format:

549	CS140
256	CS141
120	IT407
636	IT101
210	IT244



```
import java.util.*;

public class map
{
    public static void main( String [] args){

        Map <String, Integer> my_map = new HashMap <String, Integer>();

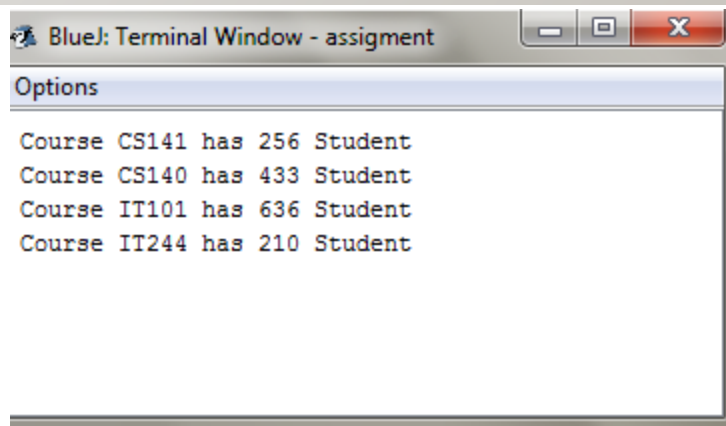
        my_map.put("CS140",549);
        my_map.put("CS141" ,256 );
        my_map.put("IT407",120 );
        my_map.put("IT101", 636 );
        my_map.put("IT244" ,210 );

        if (my_map.containsKey("IT407"))
            my_map.remove("IT407");

        if (my_map.containsKey("CS140"))
            my_map.put("CS140",433);

        for(String key: my_map.keySet() ){
            System.out.println("Course "+ key +" has " + my_map.get(key) + " Student" );
        }
    }
}
```

File saved



```
BlueJ: Terminal Window - assigment

Options

Course CS141 has 256 Student
Course CS140 has 433 Student
Course IT101 has 636 Student
Course IT244 has 210 Student
```