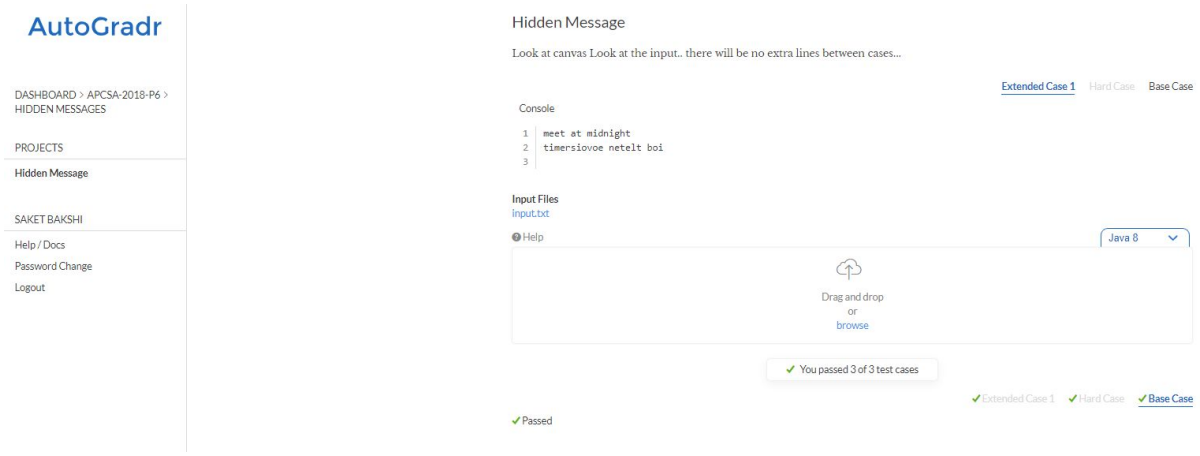
```
PS C:\Users\saket\Git\CSWork\JAVA\Labs\HiddenMessagesLabP6BakshiSaket> java Main
meet at midnight
PS C:\Users\saket\Git\CSWork\JAVA\Labs\HiddenMessagesLabP6BakshiSaket>
```




```
/* Saket Bakshi. Mr. Caces. AP Computer Science A. Due 27 January 2019.
This class takes messages and decodes them through a cover sheet, as done in the 90s action thriller, Con Air.
*/
public class HiddenMessagesLabP6BakshiSaket
{
  //instance variables

  private String[] originalMessage; //to hold the original message
  private String decodedMessage; //to hold the decoded message

  private int numberOfLinesInCover; //number of lines in the cover sheet
  private String[] coverLines; //content of each line in the cover sheet
  private int rowNum; //number of rows
  private int colNum; //number of columns

  /** This class takes messages and decodes them through a cover sheet, as done in the 90s action thriller, Con Air
  @param message the original message
  @param numberOfLinesInCover the number of lines in the cover sheet
  @param coverContent an array of the cover, where each element contains a line of the array, in order
  @param rowNum number of rows
  @param colNum number of columns
  */
  public HiddenMessagesLabP6BakshiSaket(String[] message, int numberOfLinesInCover, String[] coverContent, int rowNum, int colNum)
  {
```

```
    this.originalMessage = message;
    this.decodedMessage = "";

    this.numberOfLinesInCover = numberOfLinesInCover;
    this.coverLines = coverContent;
    this.rowNum = rowNum;
    this.colNum = colNum;
  }

  /** decodes the message
  */
  public void decode()
  {
    for(int i = 0; i < this.numberOfLinesInCover; i++) //goes through each line in cover
    {
      for(int k = 0; k < this.coverLines[i].length(); k++) //goes through each character in each line
      {
        String openOrNot = this.coverLines[i].substring(k, k+1);
        if(openOrNot.equals("O")) //checks if the character is "open"
        {
          this.decodedMessage = this.decodedMessage +
this.originalMessage[this.rowNum+i].charAt(k+this.colNum); //if open, the character at the same
spot in the message is added to the decoded message
        }
      }
    }
  }

  /** returns the decoded message
  @return the decoded message
  */
  public String getDecodedMessage()
  {
    return this.decodedMessage;
  }
}
```

```
/* Saket Bakshi. Mr. Caces. AP Computer Science A. Due 27 January 2019.
This class takes inputs for the class, HiddenMessagesLabP6BakshiSaket, and prints out
decoded messages.
*/
import java.io.File;
import java.io.FileNotFoundException;
import java.util.Scanner;

public class Main
{
  public static void main(String[] args) throws FileNotFoundException {
    File file = new File("input.txt"); //brings input into console
    Scanner scanned = new Scanner(file); //creates Scanner object out of input file

    int numberOfCases = scanned.nextInt(); //takes number of cases
    for(int m = 0; m < numberOfCases; m++) //makes loop for number of cases
    {
      int numLinesMessage = scanned.nextInt(); //takes number of lines in original message

      scanned.nextLine(); //goes to next line that starts the original message

      String[] originalMessage = new String[numLinesMessage]; //makes array to contain each
line of original message
      for(int i = 0; i < numLinesMessage; i++) //fills in array from previous line
      {
        originalMessage[i] = scanned.nextLine();
      }

      String startCoordinate = scanned.next(); //takes in start coordinate of cover
        String rowNumberString = startCoordinate.substring(0, startCoordinate.indexOf(","));
          int rowNumber = Integer.parseInt(rowNumberString); //converts to integer for row
        String columnNumberString = startCoordinate.substring(startCoordinate.indexOf(",") + 1);
          int columnNumber = Integer.parseInt(columnNumberString); //converts to integer for
column

      int numberOfLinesInCover = scanned.nextInt(); //takes number of lines in cover

      scanned.nextLine(); //goes to next line which starts the cover

      String[] coverContent = new String[numberOfLinesInCover]; //makes an array to hold each
line of the cover
      for(int i = 0; i < numberOfLinesInCover; i++) //fills in array from previous line
      {
```

```
        coverContent[i] = scanned.nextLine();
      }

      HiddenMessagesLabP6BakshiSaket tester = new
HiddenMessagesLabP6BakshiSaket(originalMessage, numberOfLinesInCover, coverContent,
rowNumber, columnNumber); //creates HiddenMessages object
      tester.decode(); //decodes the message

      System.out.println(tester.getDecodedMessage()); //returns the message for each line in the
cover
    }
  }
}
```