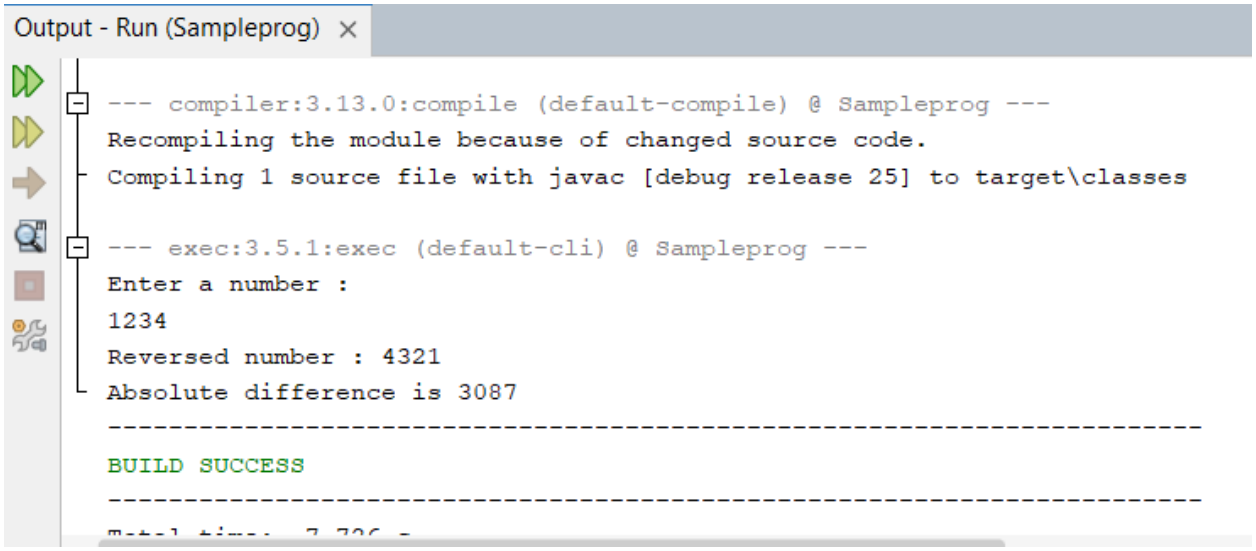
PROGRAM 1:

```
import java.util.*;
class Difference {
public static void main(String args[]){
Scanner sc = new Scanner(System.in);
System.out.println("Enter a number :"); int
num = sc.nextInt();
int rev = 0,dup = num;
while(dup > 0){
int d = dup % 10;
rev = rev*10 + d;
dup = dup/10; }
int dif = Math.abs(num - rev);
System.out.println("Reversed number : "+rev);
System.out.println("Absolute difference is " +dif);
}
}
```

OUTPUT:

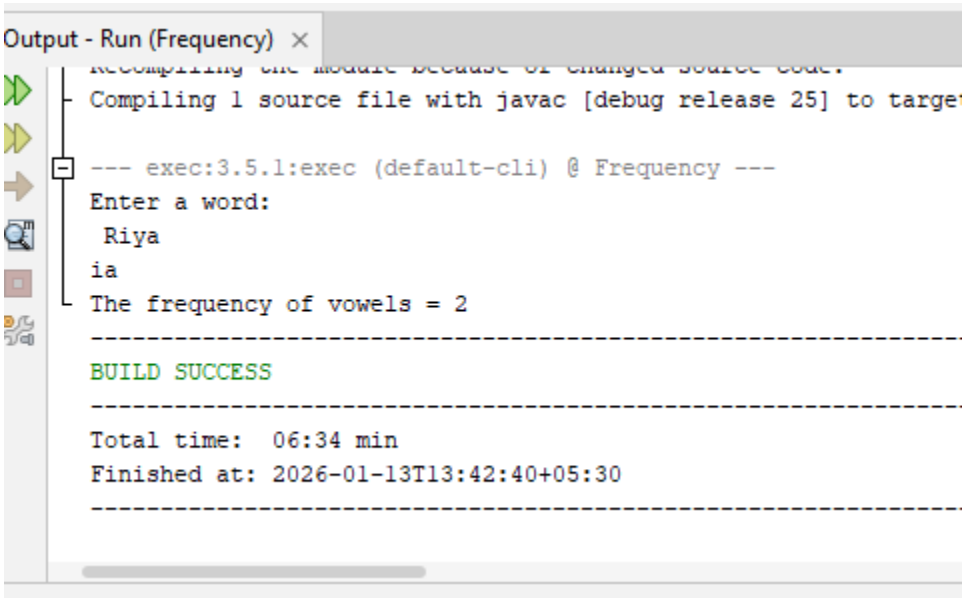


PROGRAM 2:

```
import java.util.*;
class Frequency{
public static void main(String args[]){
Scanner sc = new Scanner(System.in);
```

```
System.out.println("Enter a word:");
String s = sc.next();
int l = s.length();
int c = 0;
for(int i = 0; i < l; i++){
char ch = s.charAt(i);
if("AEIOUaeiou".indexOf(ch) != -1){
System.out.print(ch);
c = c+1;
}
}
System.out.println();
System.out.println("The frequency of vowels = "+ c);
}
}
```

OUTPUT:



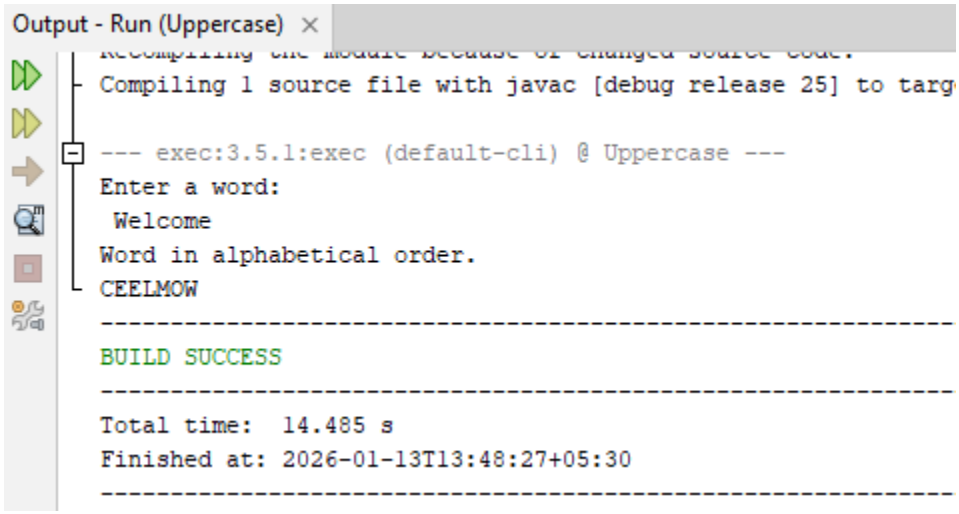
PROGRAM 3:

```
import java.util.*;
class Uppercase {
public static void main(String args[]){
Scanner sc = new Scanner(System.in);
System.out.println("Enter a word:");
String s = sc.next();
s = s.toUpperCase();
int l = s.length();
```

```
char ch;
System.out.println("Word in alphabetical order.");
for(int i = 65; i <= 90; i++){
for(int j = 0; j < l; j++){
ch = s.charAt(j);
if(ch == (char)i){
System.out.print(ch);
}
}
}
}

}
```

OUTPUT:



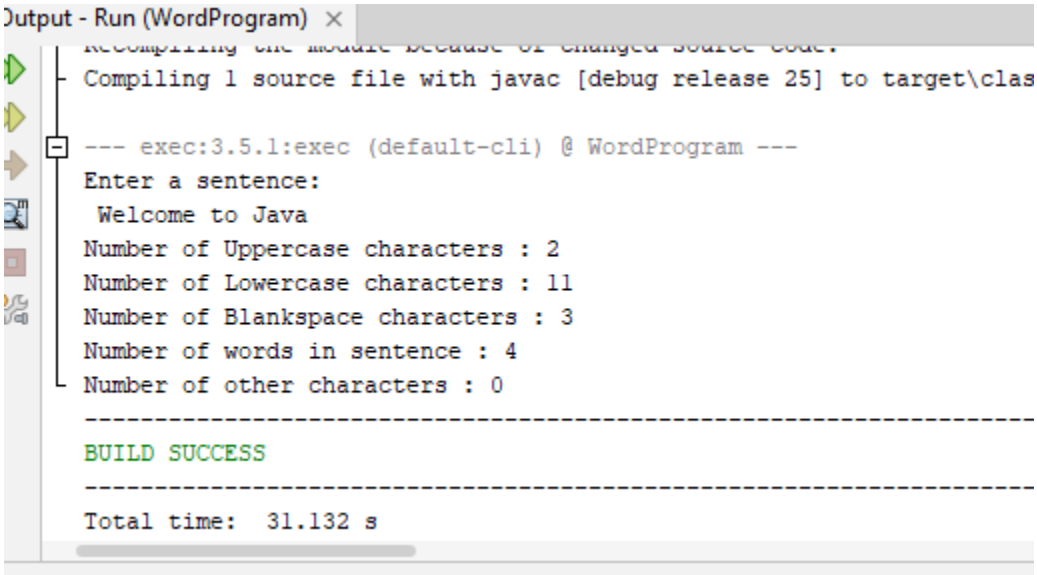
PROGRAM 4:

```
import java.util.*;
class WordProgram {
public static void main(String args[]){
Scanner sc = new Scanner(System.in);
System.out.println("Enter a sentence:");
String s = sc.nextLine();
int u = 0,l = 0,b = 0,w = 1,o = 0; int
len = s.length();
for(int i = 0; i < len; i++){
char ch = s.charAt(i);
if(Character.isUpperCase(ch)){
u = u+1;
}else if(Character.isLowerCase(ch)){
```

```
l = l+1;
}else if(Character.isWhitespace(ch)){
b = b+1;
w = w+1;

}else{
o = o+1;
}
}
System.out.println("Number of Uppercase characters : "+u);
System.out.println("Number of Lowercase characters : "+l);
System.out.println("Number of Blankspace characters : "+b);
System.out.println("Number of words in sentence : "+w);
System.out.println("Number of other characters : "+o);
}
}
```

OUTPUT:



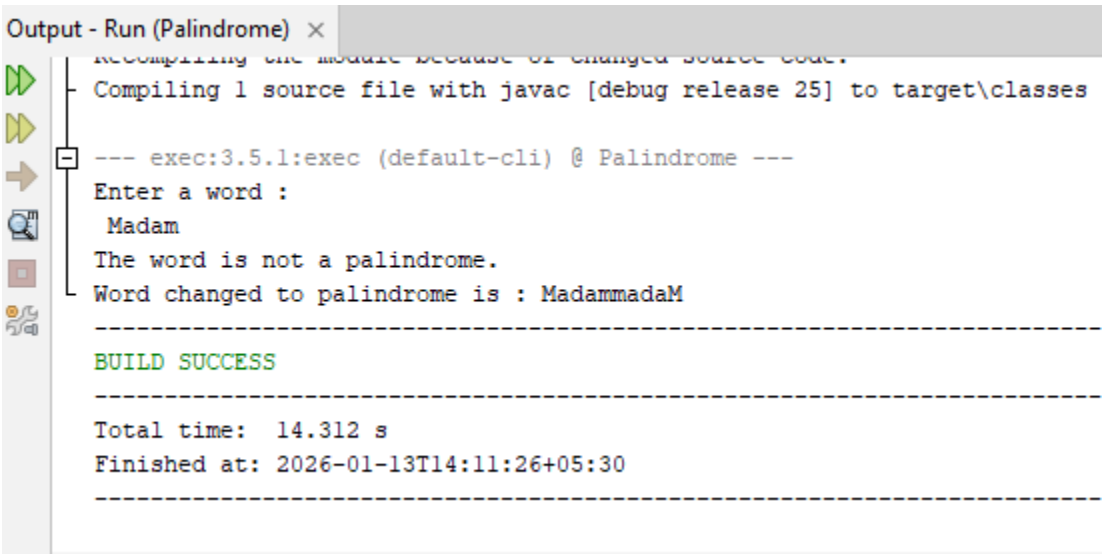
PROGRAM 5:

```
import java.util.*;
class Palindrome {
public static void main(String args[]){
Scanner sc = new Scanner(System.in);
System.out.println("Enter a word :");

String s = sc.next();
char ch ;
```

```
String s1 = "";
int l =s.length();
for(int i =0; i < l; i++){
ch = s.charAt(i);
s1 = ch + s1;
}
if(s.equals(s1)){
System.out.println("The word is a palindrome.");
}else{
System.out.println("The word is not a palindrome.");
String s2 = s + s1;
System.out.println("Word changed to palindrome is : "+ s2);
}
}
}
```

OUTPUT:

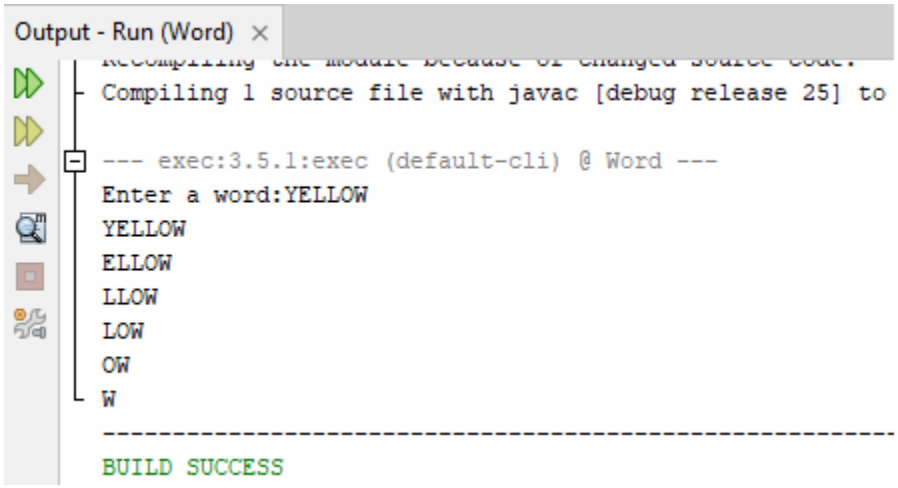


PROGRAM 6 :

```
import java.util.Scanner;
public class Word
{
public static void main(String args[]) {
Scanner in = new Scanner(System.in);
System.out.print("Enter a word:");
String word = in.nextLine();
int len = word.length();
for (int i = 0; i<len; i++) {
for (int j = i; j<len; j++) {
```

```
char ch = word.charAt(j);
System.out.print(ch); }
System.out.println();
}
}
}
```

OUTPUT:

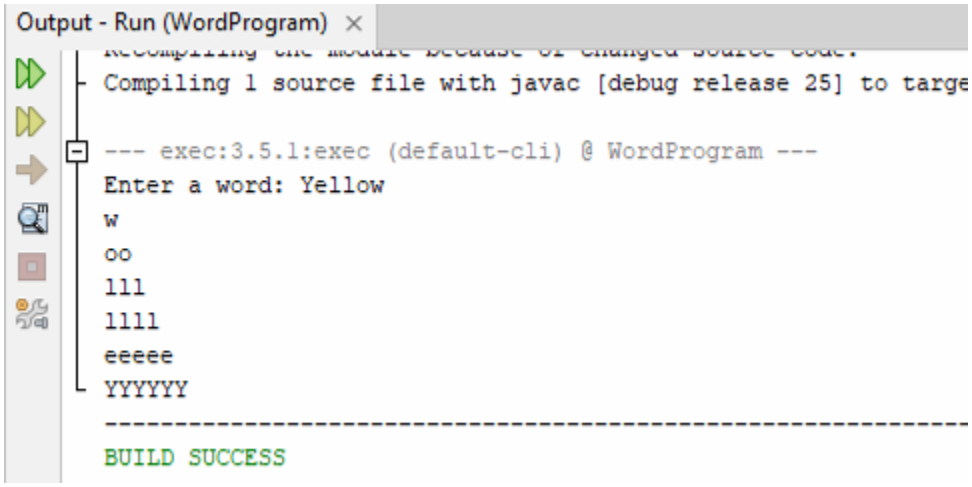


PROGRAM 7:

```
import java.util.Scanner;

public class WordProgram
{
public static void main(String args[])
{
Scanner in = new Scanner(System.in);
System.out.print("Enter a word: ");
String word = in.nextLine();
int len = word.length();
for (int i = len - 1; i>= 0; i--)
{
for (int j = len - 1; j>= i; j--)
{
char ch = word.charAt(i);
System.out.print(ch);
}
System.out.println();
}
}
}
```

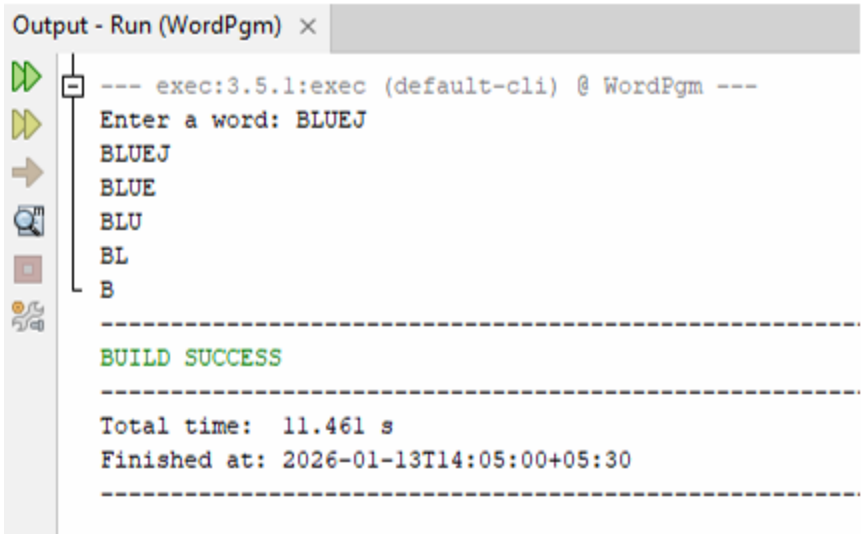
OUTPUT:



PROGRAM 8:

```
import java.util.Scanner;
public class WordPgm {
public static void main(String args[]) {
Scanner in = new Scanner(System.in);
System.out.print("Enter a word: ");
String word = in.nextLine();
int len = word.length();
for (int i = len; i > 0; i--) {
for (int j = 0; j < i; j++) {
System.out.print(word.charAt(j));
}
System.out.println();
}
}
}
```

OUTPUT:

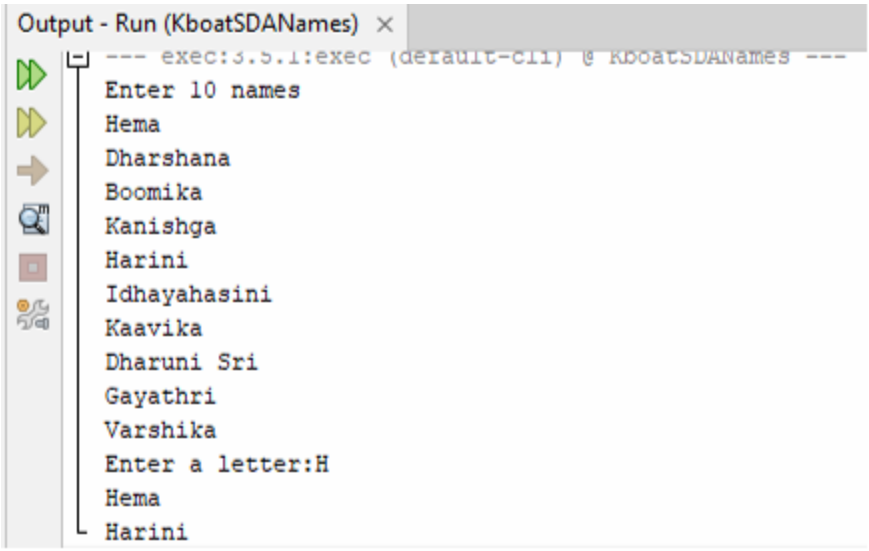


PROGRAM 9:

```
import java.util.Scanner;
public class KboatSDANames
{

public static void main(String args[]) {
Scanner in = new Scanner(System.in);
String names[] = new String[10];
System.out.println("Enter 10 names");
for (int i = 0; i<names.length; i++) {
names[i] = in.nextLine();
}
System.out.print("Enter a letter:");
char ch = in.next().charAt(0);
ch = Character.toUpperCase(ch);
for (int i = 0; i<names.length; i++) {
if (Character.toUpperCase(names[i].charAt(0)) == ch) {
System.out.println(names[i]);
}
}
}
}
```

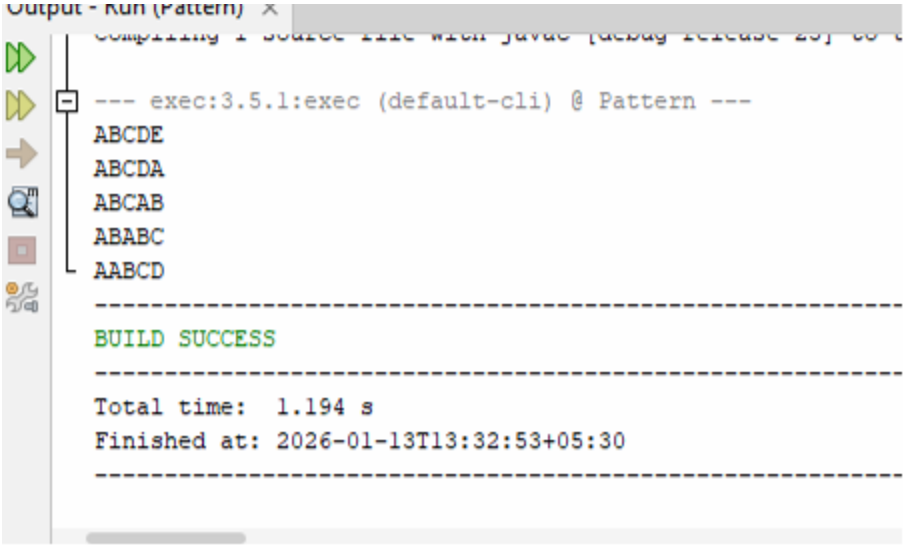
OUTPUT:



PROGRAM 10:

```
public class Pattern
{
public static void main(String args[]) {
String word = "ABCDE";
int len = word.length();
for (int i = 0; i<len; i++) {
for (int j = 0; j<len - i; j++) {
System.out.print(word.charAt(j));
}
for (int k = 0; k<i; k++) {
System.out.print(word.charAt(k));
}
System.out.println();
}
}
}
```

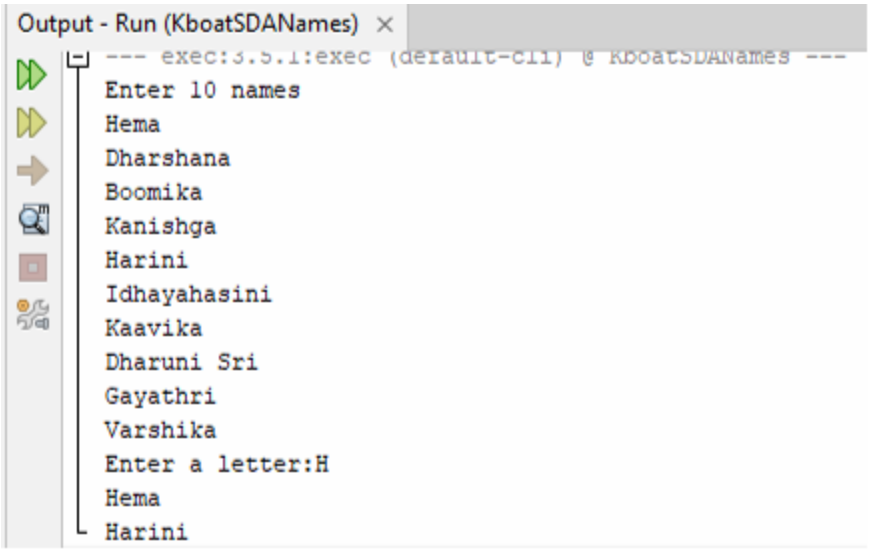
OUTPUT :



PROGRAM 11:

```
import java.util.Scanner;
public class KboatSDANames
{
public static void main(String args[]) {
Scanner in = new Scanner(System.in);
String names[] = new String[10];
System.out.println("Enter 10 names");
for (int i = 0; i<names.length; i++) {
names[i] = in.nextLine();
}
System.out.print("Enter a letter:");
char ch = in.next().charAt(0);
ch = Character.toUpperCase(ch);
for (int i = 0; i<names.length; i++) {
if (Character.toUpperCase(names[i].charAt(0)) == ch) {
System.out.println(names[i]);
}
}
}
}
```

OUTPUT:

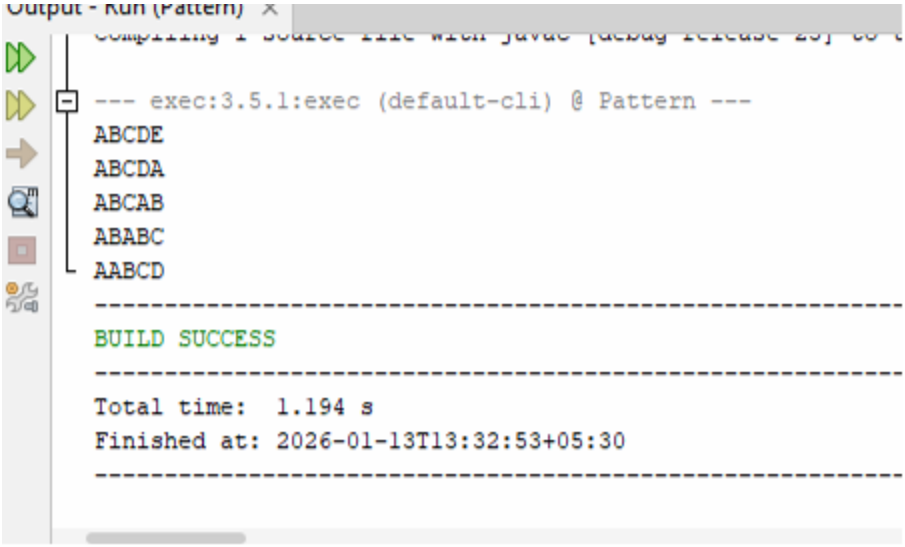


PROGRAM 12:

```
public class Pattern
public class Pattern{
public static void main(String args[]) {
String word = "ABCDE";
int len = word.length();
for (int i = 0; i<len; i++) {
for (int j = 0; j<len - i; j++) {
System.out.print(word.charAt(j));
}
for (int k = 0; k<i; k++) {
System.out.print(word.charAt(k));
}
System.out.println();
}
}

}
```

OUTPUT :

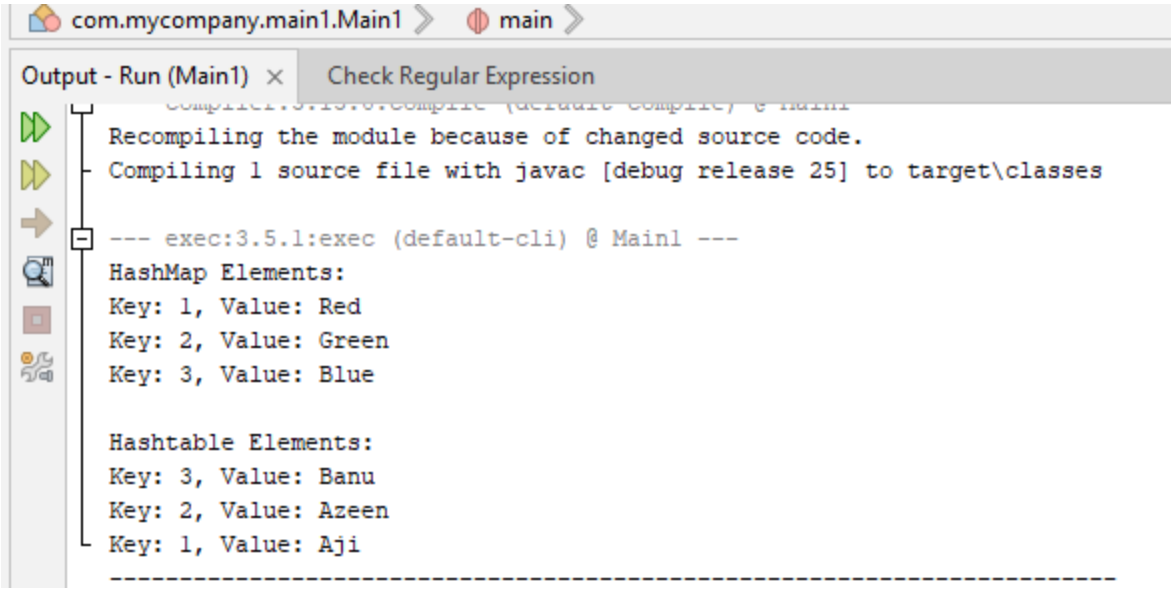


PROGRAM 13:

```
import java.util.*;
public class Main1 {
public static void main(String[] args) {
HashMap<Integer, String> hashMap = new HashMap<>();
hashMap.put(1, "Red");
hashMap.put(2, "Green");
hashMap.put(3, "Blue");
System.out.println("HashMap Elements: ");
for (Integer key : hashMap.keySet()) {
System.out.println("Key: " + key + ", Value: " + hashMap.get(key));
}
Hashtable<Integer, String> hashtable = new Hashtable<>();
hashtable.put(1, "Aji");
hashtable.put(2, "Azeen");
hashtable.put(3, "Banu");
System.out.println("\nHashtable Elements:");

for (Integer key : hashtable.keySet()) {
System.out.println("Key: " + key + ", Value: " + hashtable.get(key));
}
}
}
```

OUTPUT:

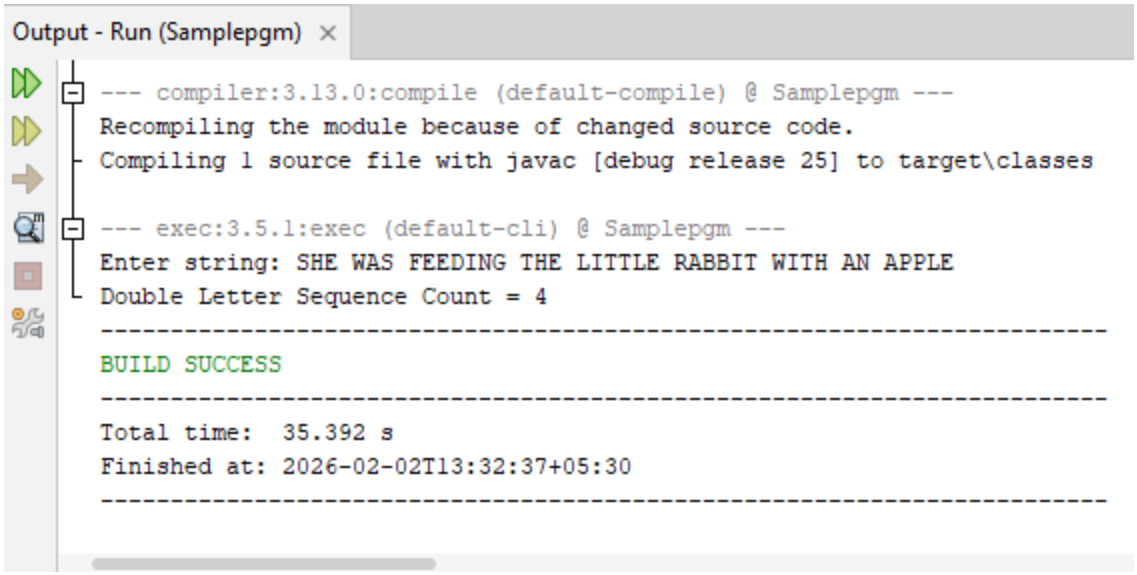


PROGRAM 14:

```
import java.util.Scanner;
public class Samplepgm {
public static void main(String args[]) {
Scanner in = new Scanner(System.in);
System.out.print("Enter string: ");
String s = in.nextLine();
String str = s.toUpperCase(); int
count = 0;
int len = str.length();
for (int i = 0; i < len - 1; i++) {
if (str.charAt(i) == str.charAt(i + 1))
count++;
}

System.out.println("Double Letter Sequence Count = " + count);
}
}
```

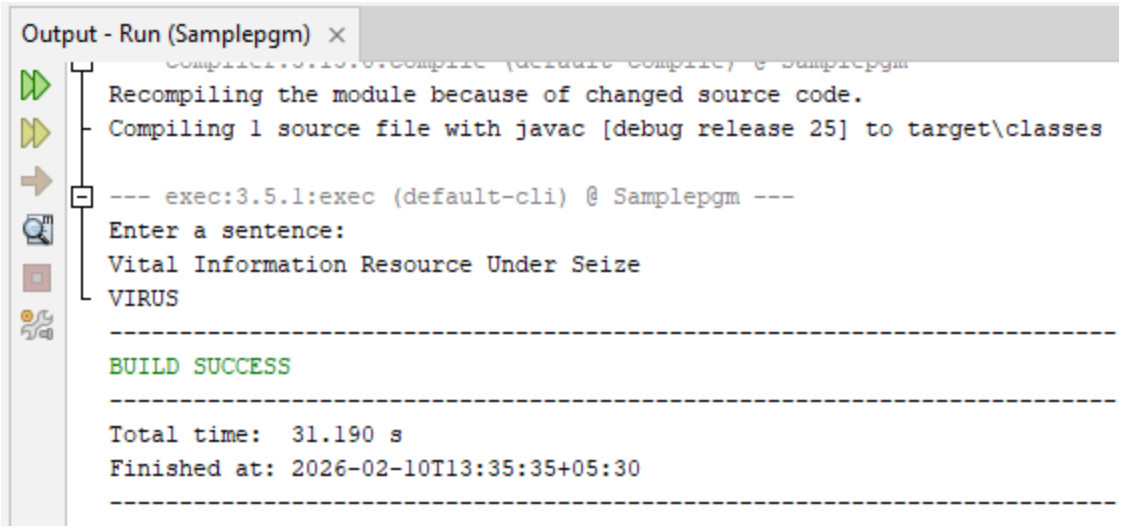
OUTPUT:



PROGRAM 15:

```
import java.util.Scanner;
public class Samplepgm
{
public static void main(String args[]) { Scanner
in = new Scanner(System.in);
System.out.println("Enter a sentence:"); String
str = in.nextLine();
String word = "" + str.charAt(0); int
len = str.length();
for (int i = 0; i < len; i++) {
char ch = str.charAt(i);
if (ch == ' ')
word += str.charAt(i + 1);
}
System.out.println(word);
}
}
```

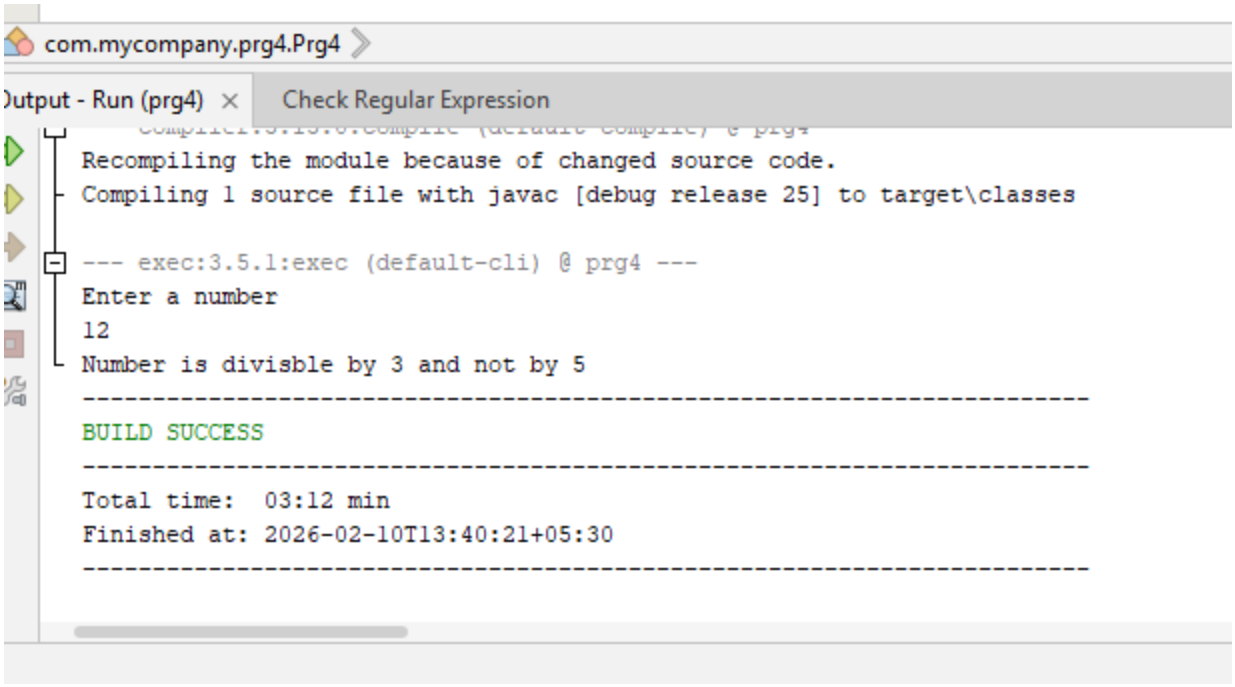
OUTPUT:



PROGRAM 16:

```
import java.util.*;
class Prg4{
public static void main(String args[]){
Scanner sc = new Scanner(System.in);
System.out.println("Enter a number"); int
num = sc.nextInt();
if(num % 3 == 0 && num % 5 == 0){
System.out.println("Number is divisble by both 3 and 5");
}else
if(num % 3 == 0 && num % 5 != 0 ){
System.out.println("Number is divisble by 3 and not by 5"); }else
if(num % 3 != 0 && num % 5 == 0 ){
System.out.println("Number is divisble by 5 and not by 3");
}else{
System.out.println("The number is neither divisble by 5 nor by 3");
}
}
}
```

OUTPUT:



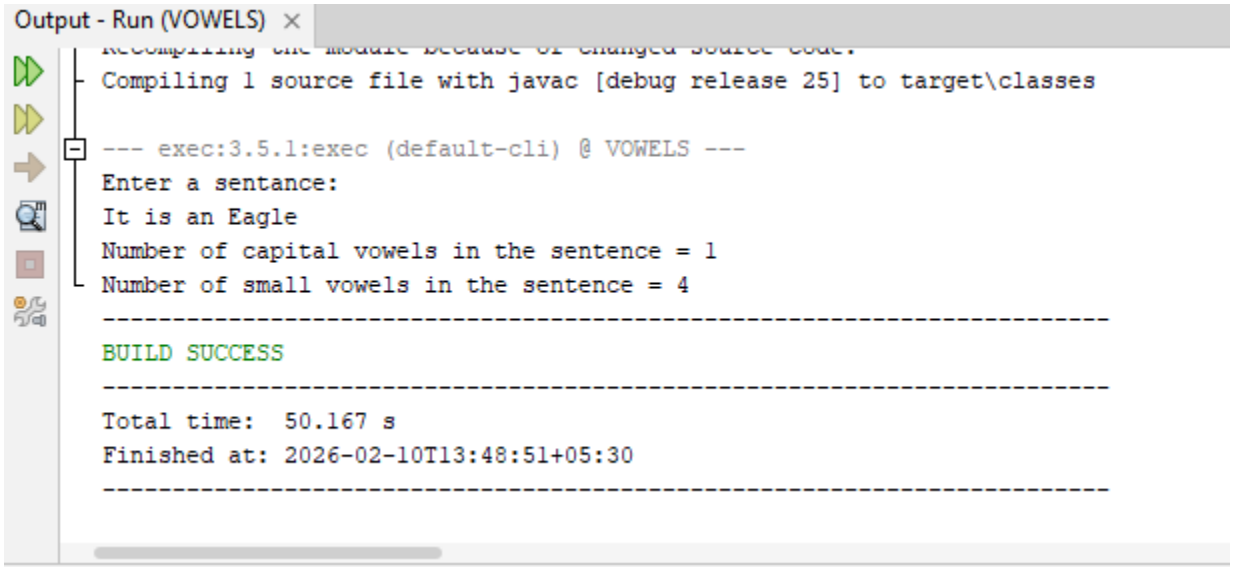
PROGRAM 17:

```
import java.util.*;
public class VOWELS {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter a sentance: ");
        String s = sc.nextLine();
        int c =0,sm=0;
        for(int i =1; i<s.length(); i++){
            char ch = s.charAt(i);
            if("AEIOU".indexOf(ch) != -1){
                c++;
            }else if("aeiou".indexOf(ch) != -1){
                sm++;
            }
        }
        System.out.println("Number of capital vowels in the sentence = "+c);
        System.out.println("Number of small vowels in the sentence = "+sm);
    }
```

```
}
```

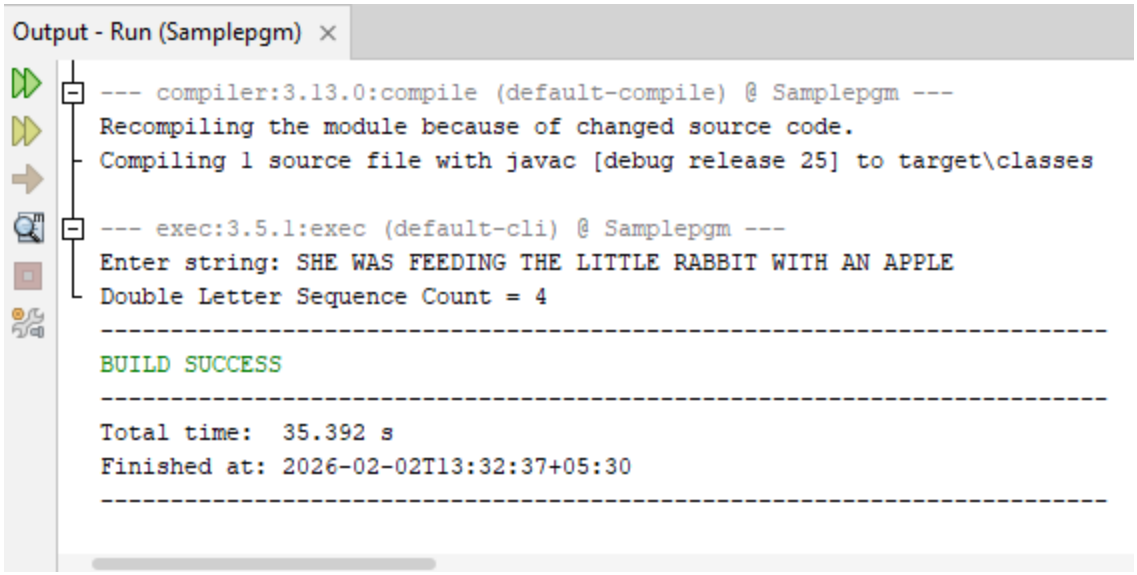
OUTPUT:



PROGRAM 18:

```
import java.util.Scanner;
public class Samplepgm {
public static void main(String args[]) {
Scanner in = new Scanner(System.in);
System.out.print("Enter string: ");
String s = in.nextLine();
String str = s.toUpperCase(); int
count = 0;
int len = str.length();
for (int i = 0; i < len - 1; i++) {
if (str.charAt(i) == str.charAt(i + 1))
count++;
}
System.out.println("Double Letter Sequence Count = " + count);
}
}
```

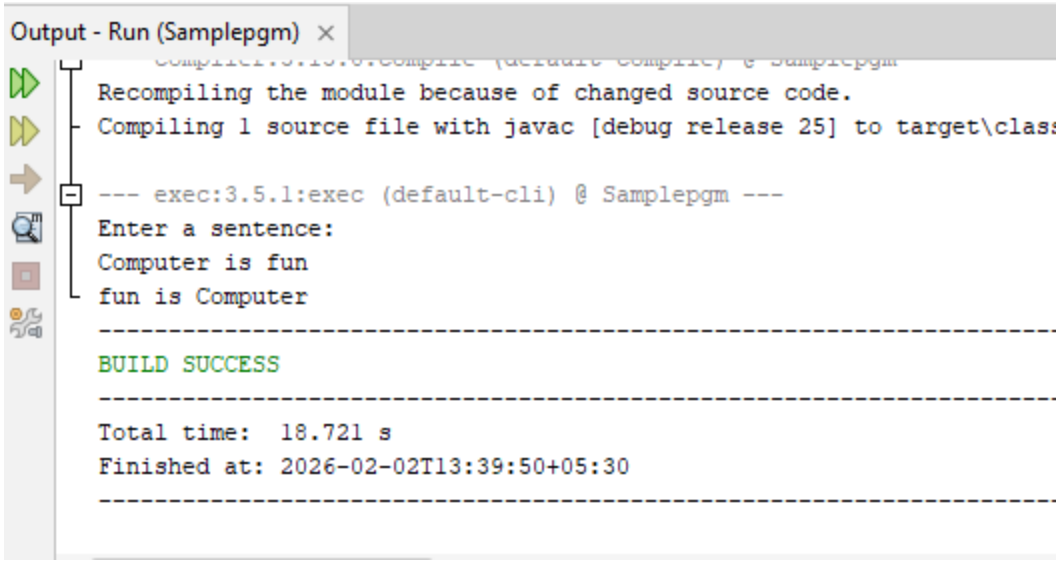
OUTPUT:



PROGRAM 19:

```
import java.util.Scanner;
public class Samplepgm
{
public static void main(String args[]) {
Scanner in = new Scanner(System.in);
System.out.println("Enter a sentence:");
String str = in.nextLine();
str = " " + str;
String word = "";
int len = str.length();
for (int i = len - 1; i >= 0; i--) {
char ch = str.charAt(i);
if (ch == ' ') {
System.out.print(word + " ");
word = "";
}
else {
word = ch + word;
}
}
}
}
```

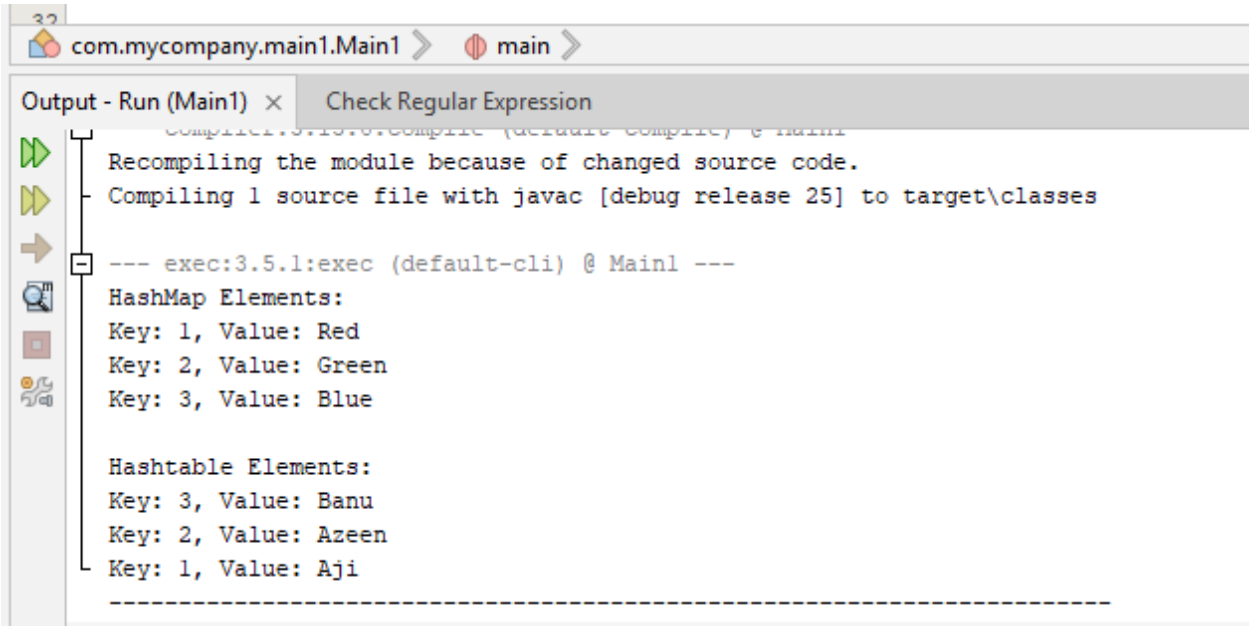
OUTPUT:



PROGRAM 20:

```
import java.util.*;
public class Main1 {
public static void main(String[] args) {
HashMap<Integer, String> hashMap = new HashMap<>();
hashMap.put(1, "Red");
hashMap.put(2, "Green");
hashMap.put(3, "Blue");
System.out.println("HashMap Elements: ");
for (Integer key : hashMap.keySet()) {
System.out.println("Key: " + key + ", Value: " + hashMap.get(key));
}
Hashtable<Integer, String> hashtable = new Hashtable<>();
hashtable.put(1, "Aji");
hashtable.put(2, "Azeen");
hashtable.put(3, "Banu");
System.out.println("\nHashtable Elements:");
for (Integer key : hashtable.keySet()) {
System.out.println("Key: " + key + ", Value: " + hashtable.get(key));
}
}
}
```

OUTPUT:



PROGRAM 21:

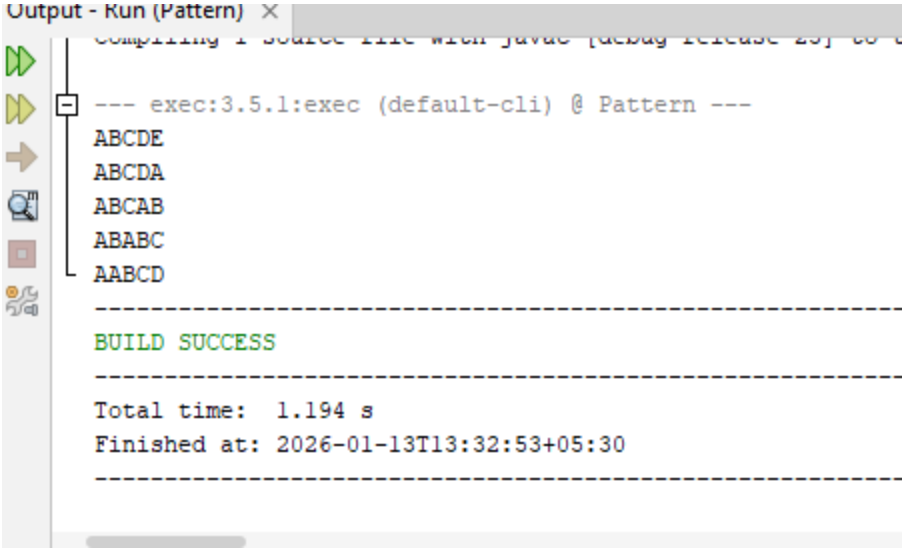
```
import java.util.Scanner;
public class KboatSDANames
{
public static void main(String args[]) {
Scanner in = new Scanner(System.in);
String names[] = new String[10];
System.out.println("Enter 10 names");
for (int i = 0; i<names.length; i++) {
names[i] = in.nextLine();
}
System.out.print("Enter a letter:");
char ch = in.next().charAt(0);
ch = Character.toUpperCase(ch);
for (int i = 0; i<names.length; i++) {
if (Character.toUpperCase(names[i].charAt(0)) == ch) {
System.out.println(names[i]);
}
}
}
}
```

OUTPUT:

PROGRAM 22:

```
public class Pattern
{
public static void main(String args[]) {
String word = "ABCDE";
int len = word.length();
for (int i = 0; i<len; i++) {
for (int j = 0; j<len - i; j++) {
System.out.print(word.charAt(j));
}
for (int k = 0; k<i; k++) {
   System.out.print(word.charAt(k));
}
System.out.println();
}
}
}
```

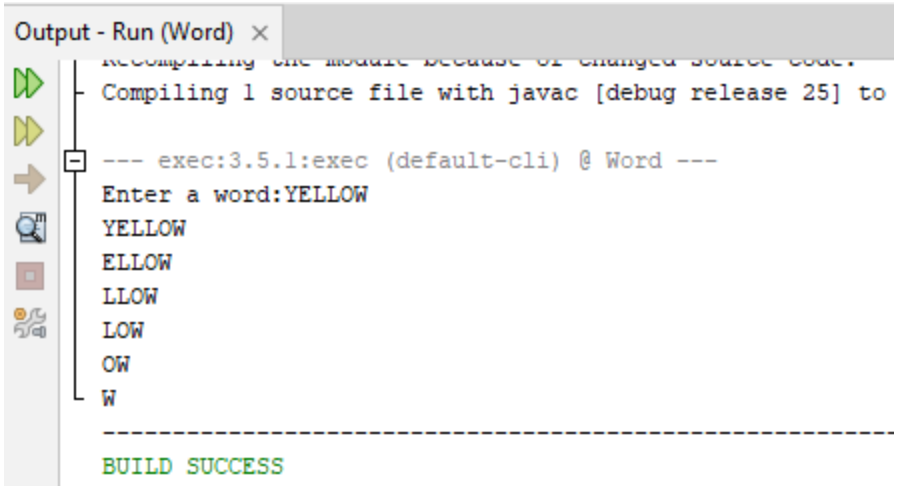
OUTPUT:



PROGRAM 23:

```
import java.util.Scanner;
public class Word
{
public static void main(String args[]) {
Scanner in = new Scanner(System.in);
System.out.print("Enter a word:");
String word = in.nextLine();
int len = word.length();
for (int i = 0; i<len; i++) {
    for (int j = i; j<len; j++) {
char ch = word.charAt(j);
System.out.print(ch); }
System.out.println();
}
}
}
```

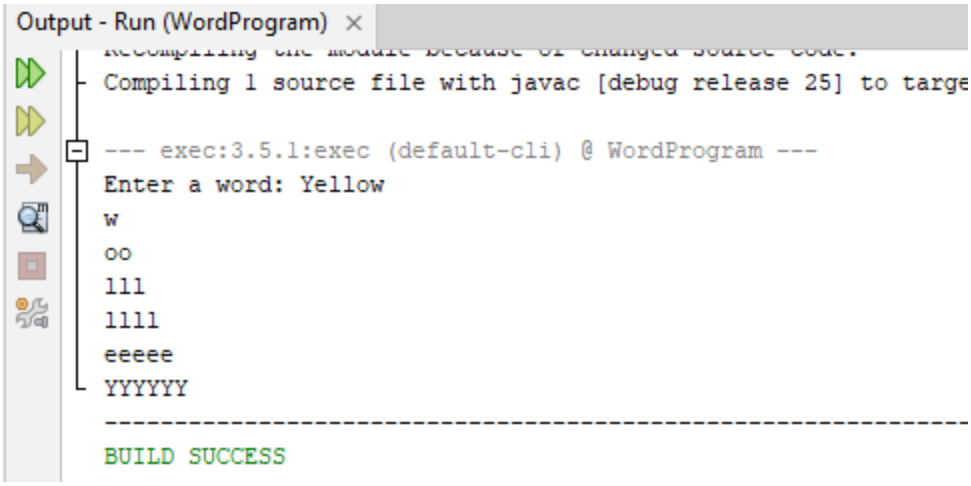
OUTPUT:



PROGRAM 24:

```
import java.util.Scanner;
public class WordProgram
{
public static void main(String args[]) {
Scanner in = new Scanner(System.in);
System.out.print("Enter a word: ");
String word = in.nextLine();
int len = word.length();
for (int i = len - 1; i>= 0; i--) {
for (int j = len - 1; j>= i; j--) {
char ch = word.charAt(i);
System.out.print(ch);
}
System.out.println();
}
}
}
```

OUTPUT:

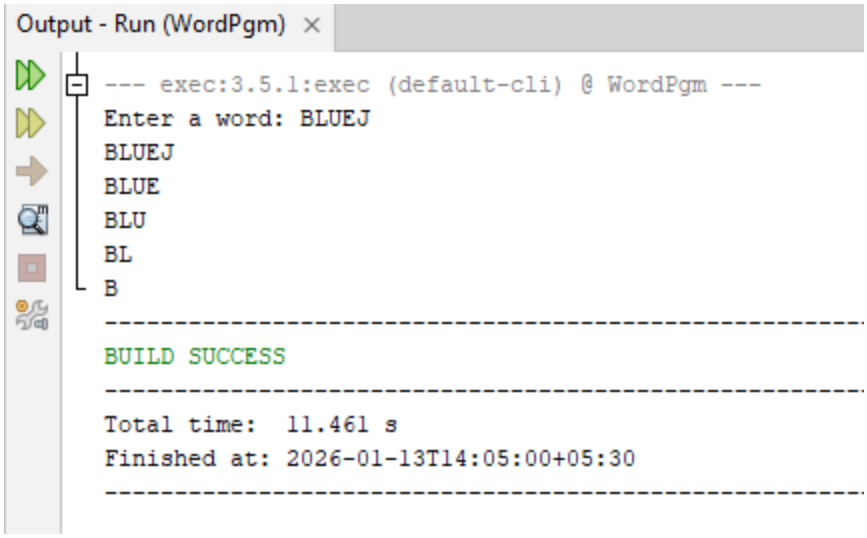


PROGRAM 25:

```
import java.util.Scanner;
public class WordPgm
{
public static void main(String args[]) {
Scanner in = new Scanner(System.in);
System.out.print("Enter a word: ");
String word = in.nextLine();
int len = word.length();

for (int i = len; i > 0; i--) {
    for (int j = 0; j < i; j++) {
        System.out.print(word.charAt(j));
    }
    System.out.println();
}
}
}
```

OUTPUT:


Output - Run (WordPgm)
--- exec:3.5.1:exec (default-cli) @ WordPgm ---
Enter a word: BLUEJ
BLUEJ
BLUE
BLU
BL
B
BUILD SUCCESS
Total time: 11.461 s
Finished at: 2026-01-13T14:05:00+05:30