**MINI PROJECT.**

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**CLASS: S.E.[CO]**

**SUBJECT: OOPML.**

**PROJECT: Implementing Caesar Cipher Algorithm In Java By using Applet.**

**HTML FILE :**

<html>

<body>

<applet code = "Crypto.class" width = 240 height = 340 ></applet>

</body>

</html>

**JAVA FILE :**

import java.awt.\*;

import java.awt.event.\*;

import java.applet.\*;

import javax.swing.\*;

public class Crypto extends Applet implements ActionListener

{

Label enterText;

TextField text;

Label enterKey;

TextField key;

Button encrypt;

Button decrypt;

Label result\_text;

Label result;

public void init()

{

Frame title = (Frame)this.getParent().getParent();

title.setTitle("PROJECT");

setSize(250, 500);

JPanel grid = new JPanel();

grid.setSize(250,500);

add(grid, BorderLayout. CENTER);

enterText = new Label("Enter Text: ");

text = new TextField(25);

enterKey = new Label("Enter key: ");

key = new TextField(25);

encrypt = new Button("Encrypt");

decrypt = new Button("Decrypt");

result\_text = new Label("Result");

result = new Label();

add(enterText);

add(text);

add(enterKey);

add(key);

add(encrypt);

encrypt.addActionListener(this);

add(decrypt);

decrypt.addActionListener(this);

add(result\_text);

add(result);

}

public void actionPerformed(ActionEvent ae)

{

if(ae.getSource() == encrypt)

{

String pt = text.getText();

String k = key.getText();

int encrypt\_key = Integer.parseInt(k);

String res = encrypt(pt,encrypt\_key);

result.setText(res);

}

else if(ae.getSource() == decrypt)

{

String ct = text.getText();

String k = key.getText();

int decrypt\_key = Integer.parseInt(k);

String res = decrypt(ct,decrypt\_key);

result.setText(res);

}

}

public String encrypt(String pt, int shift)

{

String encrypt = "";

char ptchar;

for(int i=0; i<pt.length(); i++)

{

ptchar = pt.charAt(i);

if(ptchar >= 33 && ptchar <= 126)

{

ptchar = (char) (ptchar + shift);

}

encrypt += ptchar;

}

return encrypt;

}

public String decrypt(String ct, int shift)

{

String decrypt = "";

char ctchar;

for(int i=0; i<ct.length(); i++)

{

ctchar = ct.charAt(i);

if(ctchar >= 33 && ctchar <= 126)

{

ctchar = (char) (ctchar - shift);

}

decrypt += ctchar;

}

return decrypt;

}

}