PLAGIARISM COMPARISON SCAN REPORT

Content Type	TEXT	TEXT
Values	Text content used	Text content used

First Content **4%** matched	Second Content **4%** matched
Name- Aman Kumar RajRoll Id- 201951019includestdioincludestdlibincludestdbool----------PLAYFAIR code to encrypt using PLAYFAIRchar PlayFairEncrypt(char matrix[5][5],char text,int len) char ciphermalloc(sizeof(char)len) int i for(i0ilen ii2) x1-1,y1 x2-1,y2 atext[i] btext[i1] for(x0x for(y0y xssremoved x1xy1 xssremoved x2xy2 xssremoved cipher[i]matrix[x1][(y11)%5] cipher[i1]matrix[x2][(y21)%5] xssremoved cipher[i]matrix[(x11)%5][y1] cipher[i1]matrix[(x21)%5][y2] cipher[i]matrix[x1][y2] cipher[i1]matrix[x2][y1] textmalloc(sizeof(char)len) for(i0i lenii2) x1-1,y1 x2-1,y2 acipher[i] bcipher[i1] for(x0x for(y0y xssremoved x1xy1 xssremoved x2xy2 xssremoved val1y1-1 val2y2-1 xssremoved val14 xssremoved val24 text[i]matrix[x1][val1] text[i1]matrix[x2][val2] xssremoved val1x1-1 val2x2-1 xssremoved val14 xssremoved val24 text[i]matrix[val1][y1] text[i1]matrix[val2][y2] text[i]matrix[x1][y2] text[i1]matrix[x2][y1] text malloc(sizeof(char)len) xssremoved xssremoved a7 b5 xssremoved xssremoved xssremoved xssremoved xssremoved text[i] (char) a7 b5 cipher malloc(sizeof(char)(len)) xssremoved xssremoved ciphermalloc(sizeof(char)len) k23 for(i0i cipher[i](char)((text[i]- textmalloc(sizeof(char)len) k23 for(i0i val(cipher[i]- val26 text[i](char)((val) for(i0i'a'str[i]lt'z') str[i]str[i]-('a'-'A') void ConvertToLower(char str,int len) int i for(i0ilen'A'str[i]lt'Z') str[i]str[i]('a'-'A') This will display stringvoid Display(char str,int len) int i for(i0ilen for(k0k lenplainkk1) xssremoved plain[k]'i' **x0 y0 for(i0i xssremoved matrix[x][y]key[i] xssremoved y0 for(i0i$_1$** matrix[x][y](char)(i'j'visited[i]) **matrix[x][y](char)(i'a') y if(y5) y0 x$_2$** void removeDuplicate(char str,int len,char text) int i int textlen0 for(i0iltlen-1i) if(str[i]str[i1]) text[textlen]str[i] text[textlen]'x' text[textlen]str[i1] text[textlen]'x' i else text[textlen]str[i] if(ilen-1) text[textlen]str[i] int extraLen(char str,int len) int i int extralen0 for(i0iltlen-1i) if(str[i]str[i1]) extralen2 i return extralenint main() int plaintextsize int keysize printf(Enter size of Key) scanf(%d,keysize) printf(Enter Key string) char keymalloc(sizeof(char)(keysize1)) scanf(%s,key) printf(Enter size of Plain Text) scanf(%d,plaintextsize) printf(Enter Plain Text string) char plaintextmalloc(sizeof(char)(plaintextsize2)) scanf(%s,plaintext) Upper to Lower ConvertToLower(plaintext,plaintextsize) ConvertToLower(key,keysize) here we replace **j to i$_4$** jtoi(plaintextsize,plaintext) jtoi(keysize,key) Make plain text of even length if(plaintextsize) plaintext[plaintextsize]'x' Replace all duplicate with x int extralenextraLen(plaintext,plaintextsize) char plainmalloc(sizeof(char)(plaintextsizeextralen1)) removeDuplicate(plaintext,plaintextsize,plain) plaintextsizeplaintextsizeextralen int i we will make 55 matrix to store the PLAYFAIR cypher table. char matrix[5][5] bool visited[26] **for(i0ilt5i) int j for(j0jlt5j)$_3$** matrix[i][j]'' for(i0ilt26i) visited[i]false matrixform(matrix,visited,key,keysize) We will now print Matrix created for Playfair cipher printf(n) printf(Our Generated matrix for Playfair cipher isn) **for(i0ilt5i) int j for(j0jlt5j)$_3$** if(jP) printf( ) printf(%c ,matrix[i][j]) printf(n) printf(n) this is playfair cipher printf(Cleaned plain text) Display(plain,plaintextsize) printf(ENCRYPTINGn) char e1PlayFairEncrypt(matrix,plain,plaintextsize) printf(Encrypted %s using PLAYFAIR Cipher ,plain) Display(e1,plaintextsize) char e2CaesarEncrypt(e1,plaintextsize) printf(Encrypted %s using CAESAR Cipher ,e1) Display(e2,plaintextsize) ConvertToUpper(e2,plaintextsize) char e3AffineEncrypt(e2,plaintextsize) printf(Encrypted %s using AFFINE Cipher ,e2) Display(e3,plaintextsize) printf(DECRYPTIONn) char d1AffineDecrypt(e3,plaintextsize) printf(Decrypted %s using AFFINE Cipher ,e3) Display(d1,plaintextsize) char d2CaesarDecrypt(d1,plaintextsize) printf(Decrypted %s using CAESAR Cipher ,d1) Display(d2,plaintextsize) char d3PLayFairDecrypt(matrix,d2,plaintextsize) printf(Decrypted %s using PLAYFAIR Cipher ,d2) Display(d3,plaintextsize) printf(n) printf(So finally we have %s which is same as our Cleaned text.nThus we have succesfully decrypted it.,d3)	Name - Chakradhar SrinivasID - 201951048include stdioinclude stdboolinclude stdlibinclude stringvoid makelower (char str) int i for (i 0 str[i] i) if (str [i] 65 str [i] lt 90) str[i] str[i] 32 void insertx(char str,char msg) int lenstrlen(str) int i int msglen0 for(i0ilen xssremoved msg[msglen]str[i] msg[msglen]'x' msg[msglen]str[i1] msg[msglen]str[i] xssremoved msg[msglen]str[i] ptrsstrlen(str) xssremoved str[ptrs] 'x' str[ptrs] '0' ptrsstrlen(str) i0 for(i0i xssremoved str[i]'i' **x0 y0 for(i0i xssremoved matrix[x][y]key[i] xssremoved y0 for(i0i$_1$** matrix[x][y](char)(i'j'visit[i]) **matrix[x][y](char)(i'a') y if(y5) y0 x$_2$** int excesslength(char str,int len) int i int extralength0 for(i0iltlen-1i) if(str[i]str[i1]) extralength2 i return extralengthvoid printMatrix(char matrix[5][5]) printf(n) int i **for(i0ilt5i) int j for(j0jlt5j)$_3$** printf(%c ,matrix[i][j]) printf(n) printf(n)void search(char matrix[5][5], char a, char b, int arr[]) int i, j if (a 'j') a 'i' else if (b 'j') b 'i' for (i 0 i lt 5 i) for (j 0 j lt 5 j) if (matrix[i][j] a) arr[0] i arr[1] j else if (matrix[i][j] b) arr[2] i arr[3] jint mod5(int a) if (a lt 0) a 5 return (a % 5)void playfairciferencrypt(char str[], char matrix[5][5], int l) int i, a[4] for (i 0 i lt l i 2) search(matrix, str[i], str[i 1], a) if (a[0] a[2]) str[i] matrix[a[0]][mod5(a[1] 1)] str[i 1] matrix[a[0]][mod5(a[3] 1)] else if (a[1] a[3]) str[i] matrix[mod5(a[0] 1)][a[1]] str[i 1] matrix[mod5(a[2] 1)][a[1]] else str[i] matrix[a[0]][a[3]] str[i 1] matrix[a[2]][a[1]]void caeser(char c1) int i int k23 ENCRYPTION USING CAESAR CIPHER for(i0iltstrlen(c1)i) c1[i](((c1[i]-97k2))97) void Affine(char c2) int k3a7 int k3b5 int i ENCRYPTION USING AFFINE CIPHER for(i0iltstrlen(c2)i) c2[i](((((c2[i]-97)k3a)k3b))97 void decryptplaycipher(char str[], char keyT[5][5], int ps) int i, a[4] for (i 0 i lt ps i 2) first we search into matrix search(keyT, str[i], str[i 1], a) if (a[0] a[2]) str[i] keyT[a[0]][mod5(a[1] - 1)] str[i 1] keyT[a[0]][mod5(a[3] - 1)] else if (a[1] a[3]) str[i] keyT[mod5(a[0] - 1)][a[1]] str[i 1] keyT[mod5(a[2] - 1)][a[1]] else str[i] keyT[a[0]][a[3]] str[i 1] keyT[a[2]][a[1]] decryptaffine(char c2) int k3ainv,i int k3a7,k3b5 for (i0ilt26i) if ((k3ai)1) k3ainvi for(i0iltstrlen(c2)i) c2[i](c2[i]-97-k3b) if(c2[i]lt0) c2[i]c2[i]26 c2[i]((((k3ainvc2[i]))97) decryptcesar(char c2) int k23 int i for(i0iltstrlen(c2)i) if(c2[i]lt100) c2[i]c2[i]26 c2[i](((c2[i]-97-k2))97) int main() char str[20]printf(Enter Plain textn)gets(str)makaing it lowermakelower(str)handling repetiton according to the rules of play fair cipherint plainlenstrlen(str)int extralenexcesslength(str,plainlen)char plainmalloc(sizeof(char)(plainlenextralen1))insertx(str,plain)making it even so that can convert into pairsmakeeven(plain)converting **j to i$_4$** in wordmakeij(plain)printing the final deltaprintf(The value of delta after first three steps is %sn,plain)char k1[20]printf(Enter the key K1n)gets(k1)converting **j to i$_4$** in wordmakeij(k1)char matrix[5][5]bool visit[26]int ifor(i0ilt5i)int jfor(j0jlt5j) matrix[i][j]''for(i0ilt26i) visit[i]falsebuildMatrix(matrix,visit,k1,strlen(k1))printf(Matrix built using key word k1)printMatrix(matrix)Encrypting using playfairciferplayfairciferencrypt(plain,matrix,strlen(plain))printf(Encrypted delta using play fair cipher that is C1 %sn,plain)Encrypting using CAESAR ciphercaeser(plain)printf(Encrypted C1 using CAESAR cipher that is C2 %sn,plain)Encrypting using AFFINE cipherAffine(plain)printf(Encrypted C2 using AFFINE cipher that is C3 %sn,plain)printf(----------ENCRYPTION Ended-------n)Dencrypting using AFFINE cipherdecryptaffine(plain)printf(Dencrypted C3 using AFFINE cipher that is C2 %sn,plain)Dencrypting using CAESAR cipherdecryptcesar(plain)printf(Dencrypted C2 using CAESAR cipher that is C1 %sn,plain)Dencrypting using playfaircifer cipherdecryptplaycipher(plain,matrix,strlen(plain))printf(Dencrypted C1 using playfaircifer cipher that is delta %sn,plain)printf(The final text after all the decryptions of encrypted text is %sn,plain)printf(The entered plain text intially is %sn,str)return 0