

----- = User input

```
[dougherty@hopper Project 1]$ g++ -std=c++11 decrypt.cpp
```

```
[dougherty@hopper Project 1]$ ./a.out cipher.txt dic.txt -a
```

A : 17

B : 20

C : 38

D : 2

E : 35

F : 3

G : 57

H : 23

I : 13

J : 1

K : 52

L : 10

M : 3

N : 13

O : 7

P : 7

Q : 30

R : 7

S : 61

T : 1

U : 38

V : 3

W : 3

X : 8

Z : 19

Your key:

PLAIN: ABCDEFGHIJKLMNOPQRSTUVWXYZ

KEY: KMIZSOPHUDWALECFTBQGNVXJRY

How many times each character appeared in a meaningful word:

(If the character has a low frequency, consider switching it with another character of low frequency)

A : 78

C : 8

D : 25

E : 74

F : 3

G : 6

H : 15

I : 16

K : 1

L : 16

M : 9

N : 11

O : 32

P : 5

R : 17

S : 54

T : 99

U : 6

V : 1

W : 4

Y : 1

Your Score: 140

Your decryption:

TREWIOTEDSTATESGASATMEALEGOTRTRATIATONIAIDATTRESNCOLOTATONINYKAMAIGASSTOCCOILNIV
EHSATONIGOTROTSFNVEHIEITAIDOTSEUMEHNNHCNNJOIFTNGAHDTREUAOITEIAILENYMEALEOITREMA
OYOLOIDEEDNIERNWHAYTEHKAMAESEAOHSQWADHNISRADLNUUEILEDPNUPOIFOINARWTRKAMAIES
EAUPASSADNHTNTREWIOTEDSTATESAIKDROSLNCCEAFWEDECOVEHEDTNTRESELHETAHBNYSTATEAYNHU
ACHEMCBTNAHELEITAUEHOLAIUESSAFEGROCETROSHEMCBSTATEDTRATOTSEEUEDWSECESSTNLNITOI
WETREEXOSTOIFDOMCNUATOLIEFNTOATONISOTLNITAOIEDINTRHEATNHROITNYGAHNHAHUEDATTALJ

What would you like to do next? type h and then Enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: R

CHAR2: H

KMIZSOPBUDWALECFTHQGNVXJRY

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: W

CHAR2: U

KMIZSOPBUDWALECFTHQGXVNJRY

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: I

CHAR2: N

KMIZSOPBEDWALUCFTHQGXVNJRY

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: O

CHAR2: I

KMIZSOPBCDWALUEFTHQGXVNJRY

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: G

CHAR2: W

KMIZSONBCDWALUEFTHQGXPJRY

What would you like to do next? type h and then enter for options.

n

Your new Key:

KMIZSONBCDWALUEFTHQGXPJRY

How many times each character appeared in a meaningful word:

(If the character has a low frequency, consider switching it with another character of low frequency)

A : 114

B : 3

C : 9

D : 38

E : 112

F : 4

G : 14

H : 40

I : 62

J : 1

L : 16

M : 18

N : 70

O : 38

P : 4

Q : 3

R : 30

S : 81

T : 145

U : 13

V : 1

W : 12

X : 2

Y : 4

Your Score: 235

Your decryption:

THEUNITEDSTATESWASATMEALEWITHTHATNATIONANDATTHESOCILITATIONOYKAMANWASSTICINLO
NVERSATIONWITHITSFOVERNMENTANDITSEGMENTORCOOJINFOTOWARDTHEGAINTEANLEOYMEALEINTH
EMALIYILINDEEDONEHOURAYTERKAMANESEAIRSQUADRONSHADLOGGENLEDPOGPINFINOAHUTHEKAM
ANESEAGPASSADORTOTHEUNITEDSTATESANDHISLOCCEAFUEDECIVEREDTOTHESELRETARBOYSTATEAYO
RGACREMCBTOARELENTAGERILANGESSAFEWHICETHISREMCBSTATEDTHATITSEEDEDUSECESSTOLONTIN
UETHEEXISTINFDIMCOGATILNEFOTIATIONSITLONTAINEDNOTHREATORHINTOYWARORARGEDATTALJ

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: C

CHAR2: L

KMAZSONBCDWILUEFTHQGXPJRY

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: Y

CHAR2: F

KMAZSRNBCDWILUEFTHQGXPJOY

What would you like to do next? type h and then enter for options.

n

Your new Key:

KMAZSRNBCDWILUEFTHQGXPJOY

How many times each character appeared in a meaningful word:

(If the character has a low frequency, consider switching it with another character of low frequency)

A : 121

B : 1

C : 21

D : 40

E : 124

F : 6

G : 14

H : 39

I : 78

J : 1

L : 27

M : 16

N : 80

O : 40

P : 6

Q : 3

R : 37

S : 89

T : 154

U : 14

V : 4

W : 13

X : 2

Y : 8

Your Score: 257

Your decryption:

THEUNITEDSTATESWASATMEACEWITHTHATNATIONANDATTHESOLICITATIONOFKAMANWASSTILLINCON
VERSATIONWITHITSYOVERNGENTANDITSEGMERORLOOJINYTOWARDTHEGAINTENANCEOFMEACEIN THE
MACIFICINDEEDONEHOURAFTERKAMANESEAIRSQUADRONSHADCOGGENCEDPOGPINYINOAHUTHEKAM
ANESEAGPASSADORTOTHEUNITEDSTATESANDHISCOLLEAYUEDELIVEREDTOTHESECRETARBOFSTATEAFO
RGALREMLBTOARECENTAGERICANGESSAYEWHILETHISREMLBSTATEDTHATITSEEGEDUSELESSTOCONTIN
UETHEEXISTINYDIMLOGATICNEYOTIATIONSITCONTAINEDNOTHREATORHINTOFWARORARGEDATTACJ

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: M

CHAR2: P

KMAZSRNBCDWIFUELTHQGXPJOY

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: Y

CHAR2: G

KMAZSROBCDWIFUELTHQGXPJNY

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: G

CHAR2: M

KMAZSRFBCDWIOUELTHQGXPJNY

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: K

CHAR2: J

KMAZSRFBCWDIOUELTHQGXPJNY

What would you like to do next? type h and then enter for options.

n

Your new Key:

KMAZSRFBCWDIOUELTHQGXPJNY

How many times each character appeared in a meaningful word:

(If the character has a low frequency, consider switching it with another character of low frequency)

A : 120

B : 1

C : 25

D : 38

E : 135

F : 7

G : 3

H : 40

I : 74

J : 3

K : 2

L : 27

M : 6

N : 78

O : 45

P : 22

Q : 3

R : 40

S : 83

T : 152

U : 15

V : 6

W : 13

X : 2

Y : 15

Your Score: 260

Your decryption:

THEUNITEDSTATESWASATPEACEWITHTHATNATIONANDATTHESOLICITATIONOFJAPANWASSTILLINCONV
ERSATIONWITHITSMOVERYENTANDITSEYPERORLOOKINMTOWARDTHEYAINTEANCEOFPEACEINTHEP
ACIFICINDEEDONEHOURAFTERJAPANESEAIRSQUADRONSHADCOYENCEDGOYGINMINOAHUTHEJAPANE
SEAYGASSADORTOTHEUNITEDSTATESANDHISCOLLEAMUEDELIVEREDTOTHESECRETARBOFSTATEAFORYA
LREPLBTOARECENTAYERICANYESSAMEWHILETHISREPLBSTATEDTHATITSEEYEDUSELESSTOCONTINUETHE
EXISTINMDIPLOYATICNEMOTIATIONSITCONTAINEDNOTHREATORHINTOFWARORARYEDATTACK

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: M

CHAR2: G

KMAZSROBCWDIFUELTHQGXPJNY

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: Y

CHAR2: M

KMAZSROBCWDINUELTHQGXPJFY

What would you like to do next? type h and then enter for options.

n

Your new Key:

KMAZSROBCWDINUELTHQGXPJFY

How many times each character appeared in a meaningful word:

(If the character has a low frequency, consider switching it with another character of low frequency)

A : 132

B : 1

C : 24

D : 43

E : 152

F : 9

G : 15

H : 40

I : 81

J : 3

K : 4

L : 31

M : 26

N : 84

O : 49

P : 23

Q : 3

R : 45

S : 91

T : 158

U : 17

V : 5

W : 12

X : 2

Y : 3

Your Score: 278

Your decryption:

THEUNITEDSTATESWASATPEACEWITHTHATNATIONANDATTHESOLICITATIONOFJAPANWASSTILLINCONV
ERSATIONWITHITSGOVERNMENTANDITSEMPERORLOOKINGTOWARDTHEMAINTENANCEOFPEACEIN
THE
PACIFICINDEEDONEHOURAFTERJAPANESEAIRSQUADRONSHADCOMMENCEDYOMYINGINOAHUTHEJAPA
NESEAMYASSADORTOTHEUNITEDSTATESANDHISCOLLEAGUEDELIVEREDTOTHESECRETARBOFSTATEAFOR

MALREPLBTOARECENTAMERICANMESSAGEWHILETHISREPLBSTATEDTHATITSEEMEDUSELESSTOCONTINUE
THEEXISTINGDIPLOMATICNEGOTIATIONSITCONTAINEDNOTHREATORHINTOFWARORARMEDATTACK

What would you like to do next? type h and then enter for options.

r

Where (CHAR1) is in the current decrypted text, it should be (CHAR2) instead

CHAR1: Y

CHAR2: B

KFAZSROBCWDINUELTHQGXPJMY

What would you like to do next? type h and then enter for options.

n

Your new Key:

KFAZSROBCWDINUELTHQGXPJMY

How many times each character appeared in a meaningful word:

(If the character has a low frequency, consider switching it with another character of low frequency)

A : 132

B : 7

C : 24

D : 43

E : 153

F : 9

G : 16

H : 40

I : 82

J : 3

K : 4

L : 35

M : 26

N : 85

O : 50

P : 27

Q : 3

R : 46

S : 93

T : 158

U : 17

V : 5

W : 12

X : 2

Y : 4

Your Score: 283

Your decryption:

THEUNITEDSTATESWASATPEACEWITHTHATNATIONANDATTHESOLICITATIONOFJAPANWASSTILLINCONV
ERSATIONWITHITSGOVERNMENTANDITSEMPERORLOOKINGTOWARDTHEMAINTENANCEOFPEACEIN
THE
PACIFICINDEEDONEHOURAFTERJAPANESEAIRSQUADRONSHADCOMMENCEDBOMBINGINOAHUTHEJAPA
NESEAMBASSADORTOTHEUNITEDSTATESANDHISCOLLEAGUEDELIVEREDTOTHESECRETARYOFSTATEA
FOR
MALREPLYTOARECENTAMERICANMESSAGEWHILETHISREPLYSTATEDTHATITSEEMEDUSELESSTOCONTINU
ETHEEXISTINGDIPLOMATICNEGOTIATIONSITCONTAINEDNOTHREATORHINTOFWARORARMEDATTACK

What would you like to do next? type h and then enter for options.

q

Thank you! Have a nice day!