Program PasswordManager

Class PasswordManager:

Define passwords as a map of strings to strings

Constructor PasswordManager:

Initialize passwords

Destructor PasswordManager:

Clean up any resources if necessary

Function addPassword(site, password):

Try to add (site, password) to passwords

Return true if added, false if site already exists

Function removePassword(site):

Remove the password for the given site

Return true if removed, false if site does not exist

Function getPassword(site):

Return the password for the given site, or an empty string if not found

Function listAll:

Print all site-password pairs

Function generatePassword(length):

Generate a random password of the given length

Return the generated password

Main Program:

Create an instance of PasswordManager

Ask the user if they want to add a new password

If yes:

Prompt for the site name

Ask if the user wants to generate a random password

If yes:

Generate a random password and display it

Else:

Prompt the user to enter a password

Add the password for the site

Display a success or failure message

Optionally, list all passwords

End program