

START

DEFINE CLASS LockForge

METHOD __init__(length, useUpper, useDigits, useSymbols)

SET self.length = length

SET self.useUpper = useUpper

SET self.useDigits = useDigits

SET self.useSymbols = useSymbols

METHOD generatePassword()

SET lowercase characters

SET uppercase IF useUpper is True

SET digits IF useDigits is True

SET symbols IF useSymbols is True

COMBINE all selected character types

IF no characters selected THEN

RAISE error "Select at least one character type"

INITIALIZE password list

IF useUpper is True THEN

ADD one random uppercase to password

IF useDigits is True THEN

ADD one random digit to password

IF useSymbols is True THEN

ADD one random symbol to password

ALWAYS add one random lowercase to password

CALCULATE remaining characters needed

ADD random characters from combined pool to password

SHUFFLE password list

RETURN password as string

INITIALIZE savedPasswords as empty list

DEFINE FUNCTION savePassword()

GET password from resultEntry

GET description from descEntry

IF password is empty THEN

SHOW warning "Please generate a password first"

RETURN

IF description is empty THEN

SHOW warning "Please enter a description for the password"

RETURN

APPEND dictionary with 'description' and 'password' to savedPasswords

SHOW info "Password saved"

CLEAR descEntry

DEFINE FUNCTION copyToClipboard(password)

CLEAR clipboard

APPEND password to clipboard

SHOW info "Password copied to clipboard"

DEFINE FUNCTION deletePassword(index, window)

DELETE password at index from savedPasswords

DESTROY window

CALL viewSaved() to refresh display

DEFINE FUNCTION viewSaved()

IF savedPasswords is empty THEN

SHOW info "No passwords saved yet"

RETURN

CREATE new window

SET window properties

ADD label and frame

FOR each saved password (with index) DO

DISPLAY description

ADD button to copy password

ADD button to delete password

DEFINE FUNCTION generate()

TRY

GET length from lengthEntry

GET useUpper, useDigits, useSymbols from checkboxes

CREATE LockForge object with selected options

CALL generatePassword()

CLEAR resultEntry

DISPLAY password in resultEntry

CATCH ValueError AS e

SHOW error message

CREATE main window

SET title, size, and disable resizing

ADD label "LockForge"

ADD entry for length with default value

ADD checkboxes for options: uppercase, digits, symbols

ADD button "Generate Password"

ADD entry resultEntry to show generated password

ADD label and entry for description

ADD button "Save Password"

ADD button "View Saved Passwords"

START main event loop

END