Super Hacker Level 1 – Python 🧠

🎥 **رابط الفيديو التوضيحي**: مشاهدة على يوتيوب

> ⏳ **نصيحة**: خذ وقتك في حل التمارين ولا تتسرع. الهدف هو الفهم، وليس إنهاء القائمة فقط.y

> 💬 "Go and get it" – لا تنتظر كل شيء جاهزًا!

📌 قواعد البحث عن الحلول

1. ابحث باستخدام Google أولًا.
2. استخدم ChatGPT للتوضيح فقط، وليس للحل المباشر.
3. تجنب النسخ المباشر للأسئلة في ChatGPT ❌.

🔥 Level 1: Python Basics & Data Types

Topics: Variables, Data Types, Strings, Numbers, Booleans, Input/Output

Exercises:

1. Print "Hello, Hacker!" to the console.
2. Ask the user for their name and print "Welcome, [name]!".
3. Convert `"1337"` (string) to an integer and add 10.
4. Create a program that asks for two numbers and prints their sum, difference, product, and quotient.
5. Reverse the string `"rekcah_repus"` without using built-in functions.
6. Write a program that checks if a number is even or odd.
7. Create a variable that stores a boolean value and print it.
8. Convert the string `"100101"` to a decimal number.
9. Print `"H4ck3r"` with alternating uppercase and lowercase letters.
10. Replace all vowels in `"P@ssw0rd"` with `"*"`.

🔥 Level 2: Control Flow & Loops

Topics: If-else, For loops, While loops, Logical Operators

Exercises:

1. Write a script that asks for a password and only allows access if it matches `"s3cr3t"`.
2. Print all numbers from 1 to 100 except numbers divisible by 4.
3. Print every 4-digit PIN code (0000–9999).
4. Check if a given year is a leap year.
5. Find prime numbers between 1 and 100.
6. Simulate a login system that locks after 3 failed attempts.
7. Create a number guessing game.
8. Print numbers 1-100, replacing multiples of 3 with "Fizz", 5 with "Buzz", both with "FizzBuzz".
9. Continuously ask for a password until the correct one is entered.
10. Check if a string is a palindrome.

🔥 Level 3: Lists, Tuples, and Dictionaries

Topics: Indexing, Iteration, Dictionary Lookups

Exercises:

1. Create a list of 10 hacker tools: `["Nmap", "Metasploit", "Wireshark", "Burp Suite", "JohnTheRipper", ...]`
2. Print the 3rd item in the list.
3. Create a dictionary of HTTP status codes (e.g., `{200: "OK", 404: "Not Found"}`).
4. Count how many times each letter appears in a string.
5. Sort a list of random numbers without using `.sort()`.
6. Store ports and services in a dictionary and allow user queries.
7. Function to remove duplicates from a list.
8. Convert a list into a comma-separated string.
9. Find the longest word in a list.
10. Given a dictionary of usernames and passwords, print the password for a given username.

🔥 Level 4: Functions & Modules

Topics: Function Definitions, Arguments, Return Values, Importing Modules

Exercises:

1. Write a function that reverses a string.
2. Check if a password is strong (≥8 chars, includes number & special character).
3. Generate a random password of 12 characters.
4. Create an MD5 hash of a user-entered string using `hashlib`.
5. Check if an IP address is valid.
6. Generate random MAC addresses.
7. XOR encryption function.
8. Generate a random device ID using `uuid`.
9. Resolve a hostname to an IP address.
10. Extract all vowels from a string.
