CoGrammar

# Welcome to this session:
# Task 19 Walkthrough

**The session will start shortly...**

Questions? Drop them in the chat.
We'll have dedicated moderators answering questions.

# Cyber Security Session Housekeeping

- The use of disrespectful language is prohibited in the questions, this is a supportive, learning environment for all - please engage accordingly. **(Fundamental British Values: Mutual Respect and Tolerance)**
- No question is daft or silly - **ask them!**
- There are **Q&A sessions** midway and at the end of the session, should you wish to ask any follow-up questions. Moderators are going to be answering questions as the session progresses as well.
- If you have any questions outside of this lecture, or that are not answered during this lecture, please do submit these for upcoming Academic Sessions. You can submit these questions here: **Questions**

# Cyber Security Session Housekeeping

- For all **non-academic questions**, please submit a query: ***www.hyperiondev.com/support***
- **Report a safeguarding incident: *www.hyperiondev.com/safeguardreporting***
- We would love your feedback on lectures: Feedback on Lectures
- If you are hearing impaired, please kindly use your computer's function through Google Chrome to enable captions.

# Safeguarding & Welfare

We are committed to all our students and staff feeling safe and happy; we want to make sure there is always someone you can turn to if you are worried about anything.

If you are feeling upset or unsafe, are worried about a friend, student or family member, or you feel like something isn't right, speak to our safeguarding team:

Ian Wyles
Designated Safeguarding Lead

Simone Botes

Nurhaan Snyman

Rafiq Manan

Ronald Munodawafa

Tevin Pitts

**Scan to report a safeguarding concern**

or email the Designated Safeguarding Lead:
Ian Wyles
safeguarding@hyperiondev.com

CoGrammar HyperionDev

# *Stay Safe Series*:

Mastering Online Safety One week at a Time

---

**While the digital world can be a wonderful place to make education and learning accessible to all, it is unfortunately also a space where harmful threats like online radicalization, extremist propaganda, phishing scams, online blackmail and hackers can flourish.**

**As a component of this BootCamp the *Stay Safe Series* will guide you through essential measures in order to protect yourself & your community from online dangers, whether they target your privacy, personal information or even attempt to manipulate your beliefs.**

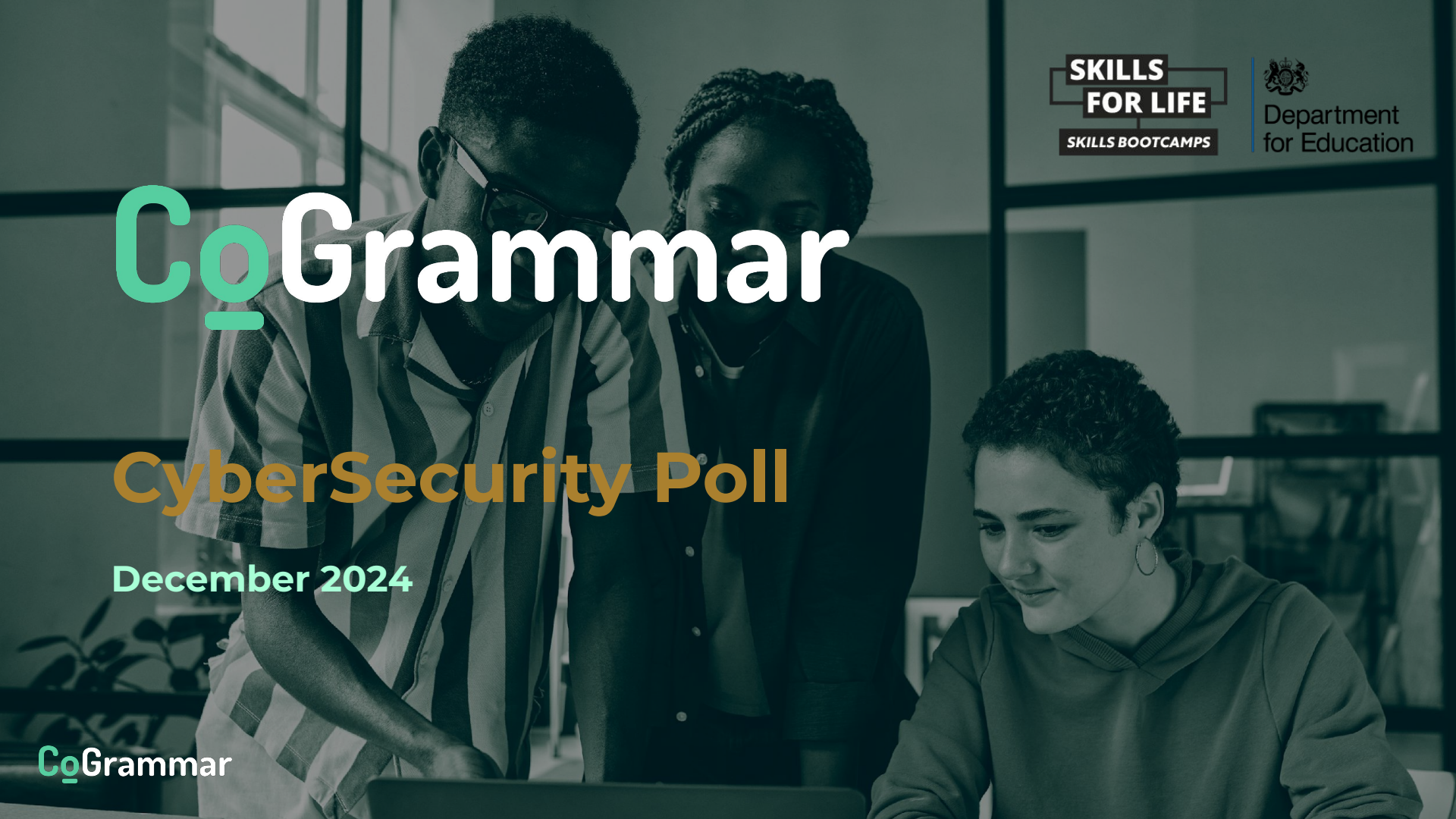
# Patch it Up:

## The Importance of Regular Software Updates


1. Fixes security vulnerabilities in your system, preventing cyber attacks.
2. Ensures your devices are protected from newly discovered threats.
3. Improves software performance and reliability.
4. Enable automatic updates for operating systems and software where possible.
5. Regularly check for updates on apps that don’t update automatically.
6. Set reminders to check for updates on devices you use less frequently.
7. Prioritize updates labeled as critical or security updates.

# Learning Objectives & Outcomes

- Define key terms such as virtual environment, hashing, and salt.
- Justify the need for creating isolated environments for Python projects.
- Explain the role of hashing and salting in securing passwords.
- Develop a simple Python program to hash passwords using the hashlib library.


SKILLS FOR LIFE
SKILLS BOOTCAMPS
Department for Education
CoGrammar
CyberSecurity Poll
December 2024
CoGrammar

# Key Terms

- **Virtual Environment:** Isolated Python workspace to manage dependencies.
- **Hashing:** One-way encryption used to secure sensitive information.
- **Salt:** Random data added to hashing for extra security.

# Task at hand

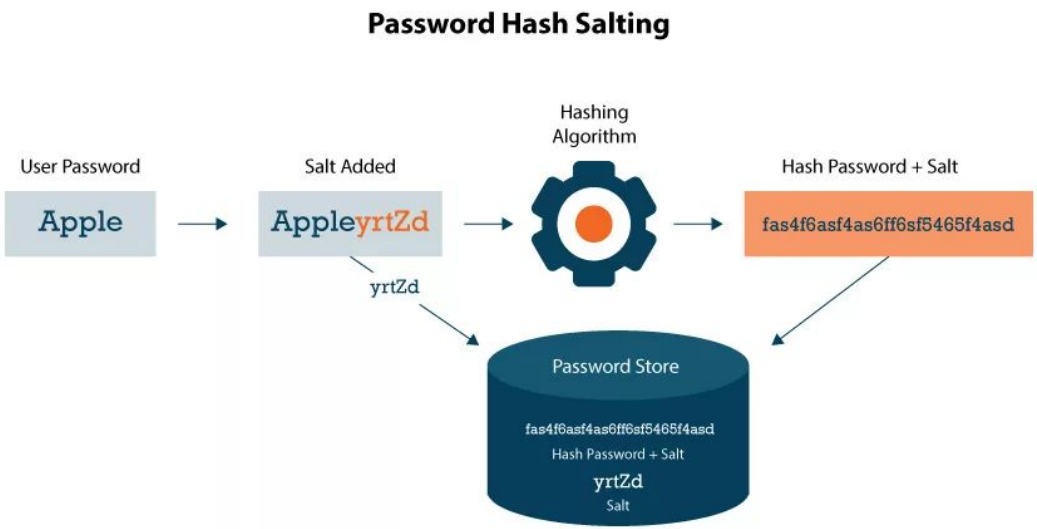
## Auto-graded task

Follow these steps:

1. Follow the instructions in the *Additional Reading* document to set up your virtual environment, and then activate it according to the steps provided.
2. Create a file called **password_hash.py**.
3. Referring to the code example provided earlier as a starting point, use the **bcrypt** Python library (hint: `import bcrypt`) to assist you in defining a function that hashes a password string provided by the user.
4. Your function should encode the user's string first before any hashing takes place.
5. Make use of the `bcrypt` library to hash the password while generating a random salt.
6. Add a **requirements.txt** file for your mentor, containing all of the dependencies for your program.
7. Deactivate your virtual environment once you have completed the task.

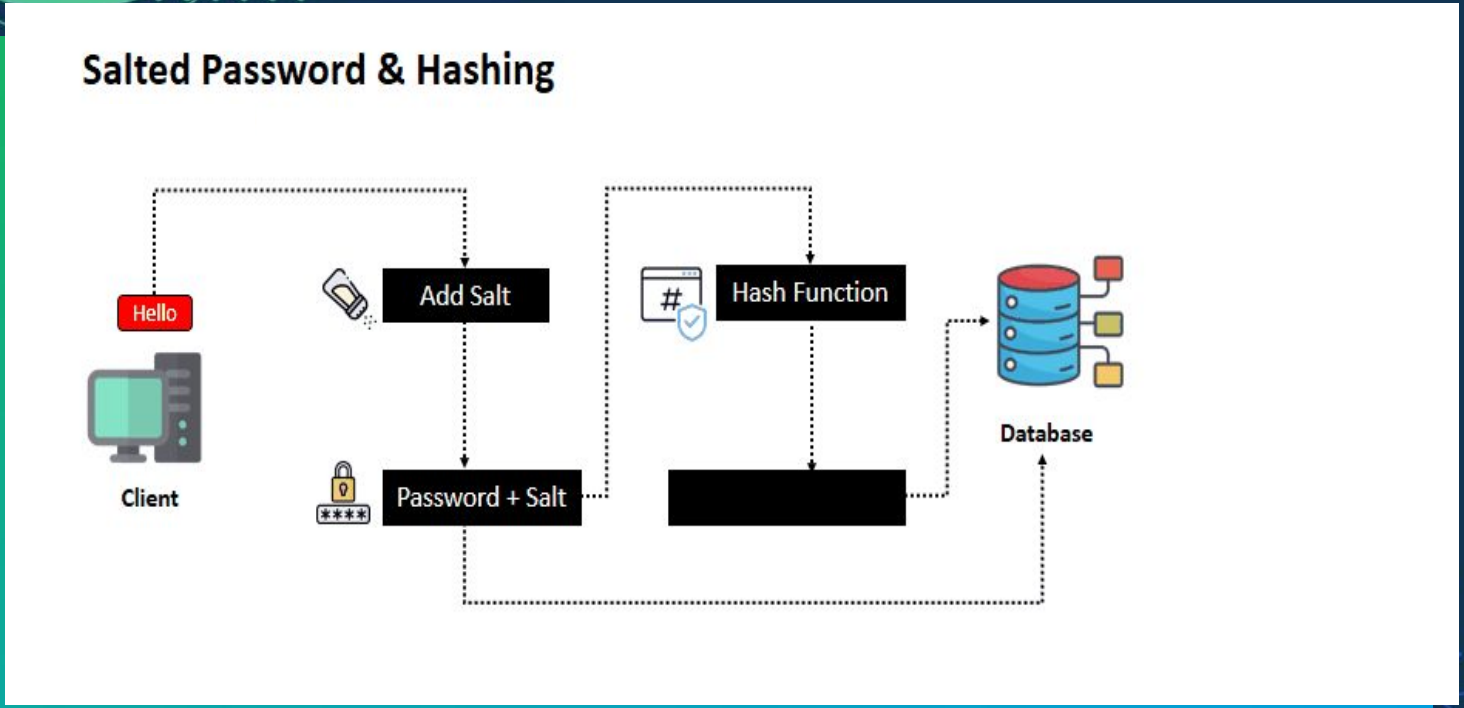
Be sure to place files for submission inside your task folder and click "Request review" on your dashboard.

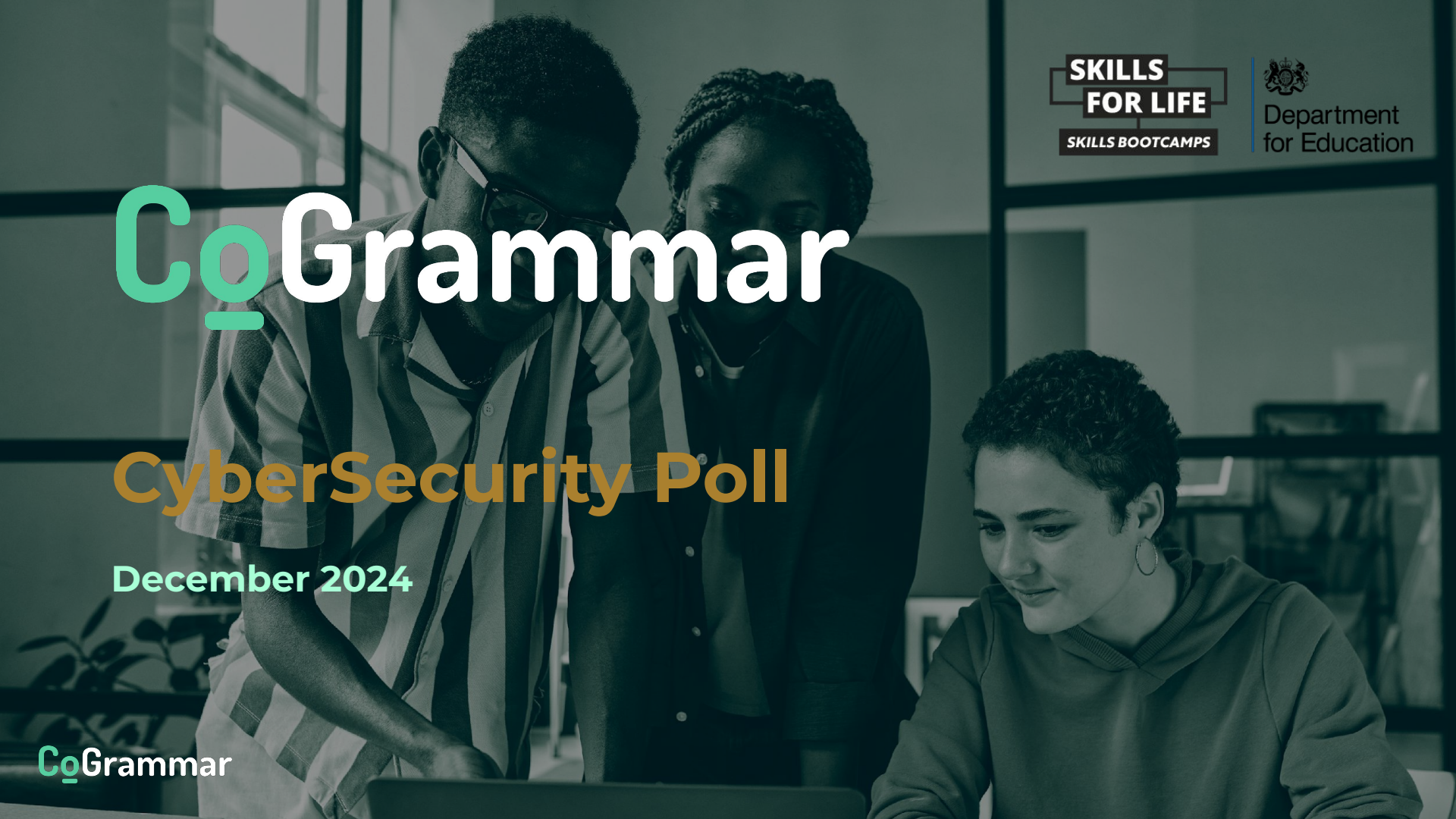
# Hashing Process Example




CoGrammar

# Hashing Process Example




SKILLS FOR LIFE
SKILLS BOOTCAMPS
Department for Education
CoGrammar
CyberSecurity Poll
December 2024
CoGrammar

# Questions and Answers

CoGrammar

# Thank you for attending

CoGrammar

SKILLS FOR LIFE
SKILLS BOOTCAMPS

Department for Education