



## F11.3 Social engineering

Cyber security · GCSE · OCR J277 1.4.1, AQA 8525 3.6.2, Edexcel 1CP2

5.3.1 · about 15 min

Name \_\_\_\_\_

Class \_\_\_\_\_

Date \_\_\_\_\_

### What this lesson is about

Phishing, pharming, shouldering and blagging, and a filter that flags them.

- The tricks
- Spotting a phishing message
- Why it works

### Questions

5 marks in all

1. What is social engineering? [1 mark]
  - ☐ A Tricking people into giving away access or information
  - ☐ B Attacking a firewall
  - ☐ C Writing malware
  - ☐ D Encrypting data
2. What is phishing? [1 mark]
  - ☐ A Fake messages that trick you into revealing details
  - ☐ B Guessing passwords
  - ☐ C Flooding a server
  - ☐ D Watching over a shoulder
3. What is shouldering? [1 mark]
  - ☐ A Watching someone type a password or PIN
  - ☐ B Sending fake emails
  - ☐ C Redirecting a website
  - ☐ D Installing spyware
4. Which is a warning sign of a phishing email? [1 mark]
  - ☐ A An urgent threat and a request for your password
  - ☐ B A message from a saved contact
  - ☐ C A plain text with no links
  - ☐ D A correctly spelled company name
5. Someone rings claiming to be from IT and asks for your password. What is this? [1 mark]
  - ☐ A Blagging (pretexting)
  - ☐ B Phishing
  - ☐ C A brute force attack
  - ☐ D A firewall

## The task: a phishing filter

Write `score_message(message)`, which returns how many of the `warning_signs` appear in the message (ignoring capital letters). For each message in `inbox`, print `<subject>: <score>` and then, on the same line, `PHISHING` if the score is 2 or more. At the end print `flagged <n> of <total>`.

```
# the two lines every program starts with: the commands, then the robot
from bugbot import *
connect()

warning_signs = ["urgent", "password", "click here", "you have won", "verify", "gift card"]
inbox = [
    ("Lunch tomorrow?", "Are you free for lunch tomorrow?"),
    ("Account alert", "URGENT: verify your password by click here now"),
    ("You have won", "You have won a gift card, click here to claim"),
    ("Homework", "Here is the homework for Friday"),
]
```

Plan your program here, then type it in and press Run.



**Do it on the robot**

[www.bugbotlab.com/learn/f11-3-social-engineering/](http://www.bugbotlab.com/learn/f11-3-social-engineering/)

The simulator checks it and tells you when it passes. Nothing to install, no account.

## Challenges

1. Add a check for a web address that does not end in `bugbotlab.com`.
2. Why is "Dear Customer" a warning sign, when "Dear Alex" is not?
3. Someone rings claiming to be from IT and asks for your password. What do you do, and why?