

DECI Level 2

## In-Person Session 4

## Intro to cybersecurity & digital Arts

## Learning Objectives

1. Understands what is encryption and decryption and applies it within a simulated environment
2. Able to clearly understand what is social engineering and how to be careful in
3. Identify threats and vulnerabilities within a real-life scenario
4. design a digital graphic to use as marketing material to try and promote for a special product of the student’s choosing

## Session Structure

**1. Login and lab setup *(10 minutes)***

* Make sure all students have their Udacity account credentials ready.

**2. Team Formation *(10 minutes)***

* Create a team of 2 or 3 students.

**3. Activity 1: *Cipher - Decipher (15 showcase - 50 minutes)***

* **Objective:** Learn different methods of encryption and decryption.
* **Introduction (15 minutes):**
  + Explain three types of ciphering: Caesar Cipher, Simple Transposition, and one additional method of your choice.
  + Demonstrate each method briefly using the provided links:

1. Caesar instructions: <http://highschool.spsd.org/crypt/about.html>
2. Simple transposition: <http://highschool.spsd.org/crypt/transpositionin.html>

* **Activity (20 minutes):**
  + assign each team a different ciphering method.
  + Distribute to Cipher their message with their ciphering method. [(pass the cards)](https://docs.google.com/spreadsheets/d/1plFCM8BxV9ZNweeTbjM5cmp63ahoQ_gKUncWfze9PoU/edit?usp=sharing)
  + Pass the encoded messages (on cards) to another team.
  + Teams guess and decode their messages (Trial and Error).
  + Optional: In case the level of knowledge was not high amongst the students, let them know exactly which ciphering method to use.
  + Provide assistance and hints if necessary.

**Outcome:** Students will understand how to encrypt and decrypt messages using different methods.

#### **Identifying Threats and Vulnerabilities (30 minutes)**

**Objective:** Learn to identify and assess security vulnerabilities and threats.

* **Instructions:**
  + Each team identifies the location of their role and asks the trainer if they don’t know (e.g., a school, bank, or public park).
  + Teams spend some time writing down the following details about the location:
    - **5 Vulnerabilities:** Weak points in security.
    - **5 Threats:** Potential dangers to those vulnerabilities.
    - **5 Recommendations:** Suggestions to improve security.
  + Encourage creativity and critical thinking.
  + In case you get stuck, checkout [the spreadsheet](https://docs.google.com/spreadsheets/d/1plFCM8BxV9ZNweeTbjM5cmp63ahoQ_gKUncWfze9PoU/edit?usp=sharing) for some ideas

**Outcome:** Students will practice identifying security issues and proposing solutions.

**4. Break *(15 - 25 minutes)***

**5. Activity 2: *Create a Digital Arts Ad for a Client*** ***(40 minutes):***

* **Objective:** Design and create a digital advertisement using a moodboard.
* **Instructions:**
  + Assign topics randomly to teams of 2 Look at the [ideas sheet](https://docs.google.com/spreadsheets/d/1SWSKJ_clxkW6TXdObitTuOrteV2t96fzC0ah0aYKf4k/edit?usp=sharing).
  + Each team creates a moodboard for their product.
  + Teams follow the moodboard to design an advertisement.
  + Present your favorite one to the rest of the class

**Outcome:** Students will learn how to use digital art tools and moodboards to create compelling advertisements.

**6. Wrap Up *(15 - 25 minutes)***

* + Review cipher and decipher methods.
  + Summarize the importance of identifying threats and vulnerabilities.
  + How to create digital arts for your own digital product and incorporate it with a provided moodboard

**7. Assessment** ***(30 minutes)***

1. حقيبة ظهر مزودة بمروحة تعمل بالطاقة الشمسية، مصممة للمتنزهين الذين يستكشفون الصحراء المصرية.
2. غطاء هاتف مزود ببوصلة، مصمم للمغامرين الذين يستكشفون نهر النيل.
3. زجاجة ماء مزودة بمترجم للهيروغليفية، مصممة للسياح الذين يزورون الآثار المصرية القديمة.
4. لوح تزلج مزود بشريط إمساك ذو تصميم فرعوني، مصمم للمتزلجين الذين يرغبون في إظهار حبهم للثقافة المصرية.
5. حقيبة ظهر مزودة بحزمة ماء على شكل جمل، مصممة للمتنزهين الذين يستكشفون صحراء الصحراء الكبرى.
6. غطاء هاتف مزود بمؤقت رملي، مصمم للمسافرين الذين يرغبون في تتبع الوقت بطريقة فريدة وممتعة.
7. زجاجة ماء مزودة بفلتر رمل، مصممة للمتنزهين الذين يرغبون في الشرب من مصادر المياه الطبيعية في الصحراء.
8. لوح تزلج مزود برسمة أبو الهول، مصمم للمتزلجين الذين يرغبون في إظهار حبهم للتاريخ المصري.
9. زجاجة ماء مزودة بورق بردي للكتابة، مصممة للمسافرين الذين يرغبون في توثيق رحلتهم عبر مصر.
10. زجاجة ماء مزودة بتصميم على شكل جمل، مصممة للسياح الذين يرغبون في أخذ قطعة من مصر معهم إلى المنزل.
11. لوح تزلج مزود بعجلات مقاومة للرمل، مصمم للمتزلجين الذين يرغبون في التزلج في الصحراء دون إتلاف لوحهم.
12. حقيبة ظهر مزودة بقبعة شمسية، مصممة للمتنزهين الذين يستكشفون المناخ الحار والمشمس في مصر.
13. غطاء هاتف مزود بحامل على شكل هرم، مصمم للمسافرين الذين يرغبون في التقاط صور لأنفسهم مع الأهرامات في الخلفية.

Idea

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| 1. - A backpack with a built-in solar-powered fan, designed for hikers exploring the Egyptian desert. |
| 1. - A phone case with a built-in compass, designed for adventurers exploring the Nile River. |
| 1. - A water bottle with a built-in hieroglyphic translator, designed for tourists visiting ancient Egyptian ruins. |
| 1. - A skateboard with a built-in pharaoh-themed grip tape, designed for skaters who want to show off their love for Egyptian culture. |
| 1. - A backpack with a built-in camel pack, designed for hikers exploring the Sahara Desert. |
| 1. - A phone case with a built-in sand timer, designed for travelers who want to keep track of time in a unique and fun way. |
| 1. - A water bottle with a built-in sand filter, designed for hikers who want to drink from natural water sources in the desert. |
| 1. - A skateboard with a built-in sphinx graphic, designed for skaters who want to show off their love for Egyptian history. |
| 1. - A water bottle with a built-in papyrus paper scroll, designed for travelers who want to document their journey through Egypt. |
| 1. - A water bottle with a built-in camel-themed design, designed for tourists who want to take a piece of Egypt home with them. |
| 1. - A skateboard with a built-in sand-resistant wheels, designed for skaters who want to ride in the desert without damaging their board. |
| 1. - A backpack with a built-in sun hat, designed for hikers exploring the hot and sunny Egyptian climate. |
| 1. - A phone case with a built-in pyramid-shaped stand, designed for travelers who want to take pictures of themselves with the pyramids in the background. |

<https://docs.google.com/spreadsheets/d/1SqNL--3RL2fuNMvvgSxbZxx4EtOeTSys/edit?gid=159003521#gid=159003521>

الداشبورد عشان الغياب (بعد تسجيل الدخول على موقع يوداسيتي بالايميل و الباسوورد المسجلين عندنا):

<https://mentor-dashboard.udacity.com/connect>

Live Escalation Sheet:

لينكات الامتحان و الطلبة اللي ناسية الايميل أو الباسوورد

<https://docs.google.com/spreadsheets/d/1Vb1boX71Z9jcntPUwDiMiE9jGPvut70RyHwKUKZvXnQ/edit?gid=230142224#gid=230142224>

الطلبة اللي هتمتحن و تمشي تبع مراكز يات:

<https://docs.google.com/spreadsheets/d/1a_yUPdqD9md9BF8ehHY-ajdqlNNa6sNqpsfGy4_jsFw/edit?gid=509557765#gid=509557765>

الطلبة اللي هتمتحن و تمشي تبع مراكز سي إل إس:

https://docs.google.com/spreadsheets/d/1Qd3IEnhbEfzitVczATY70K-Ej528ggTRqAOh5u5xQUQ/edit?gid=509557765#gid=509557765

موقع يوداسيتي:

www.udacity.com

موقع زوم لتسجيل المحاضرات:

www.zoom.us

قائمة بالايميلات الصحيحة لكل قاعة لتسجيل الدخول على يوداسيتي و زوم (كلمة المرور يتم طلبها من الجهة المتعاقدة)

https://docs.google.com/spreadsheets/d/1g5tfFQ0nDf\_jisf8VrZnl6SAxFZkINe-M-obOC2lFDc/edit?usp=sharing