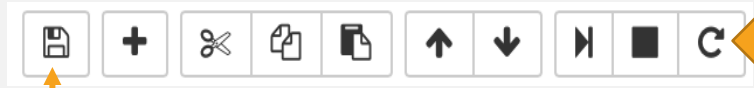




2.1. Exploring Programming with Python

Note: The numbers in Card match the Tasks numbers in Jupyter Notebook.

1. **Practice** Python programming using **Jupyter**. Open the terminal: `>_` & type in: `jupyter notebook`. Hit Enter & in Jupyter open 'Session 2' folder, then open 'Untitled' file.



Copy & Paste

- Select**
- Copy**
- Paste**

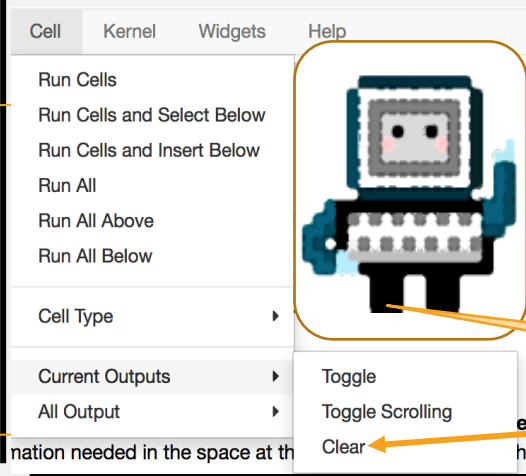
SAVE your work every time by clicking on this icon.

```
In [ ]: # Exponentiation example
print(2**3)
```

A cell looks like a line to enter information. You can copy and erase cells..

In 'Untitled' file, navigate **Jupyter** by exploring what each icon on the the taskbar does. *What's a cell?*

2. **To play** the *Guessing Game*: (a) open Session 2 file in **Jupyter**,



- open Session 2 file in **Jupyter**,
- In **task 2**, select the cell named: **EXAMPLE** with game code,
- click 'run'
- at bottom, enter data it asks for
- take turns
- clear cell by clicking on 'run' again

To clear cells follow these steps.

3. Run & play **CELLS A-C** in **Task 3**. What do you notice about the print command?

Why does the cell blue frame mean?

These boxes are (Python or Text) cells: some have: 'In []' and others don't. Why?

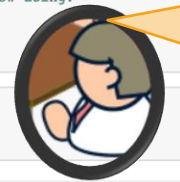
TASK 3: Comparing Python Cells & Using 'print' Commands

```
In [ ]: # CELL A: When you type "#" at the beginning of a line, it creates a COMMENT.
# The computer does not process comments.
# USE COMMENTS TO DESCRIBE WHAT YOU NOTICE.
# Computers process code in order, line by line. See below:
x = 5
print(x)

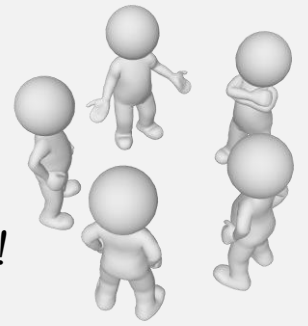
# While in this cell, click on the play button and run the code. What happens?
# After running this code, clear cell and print other numbers.

In [ ]: # CELL B: Strings are sets of programmed text in this cell.
# try this code and run it, what happens? What at the code below doing?
name = input("What is your name? ")
hi = "Hello " + name + "!" # Addition is concatenation
print(hi)

In [*]: # CELL C: Python can process complex expressions like:
x = 100
print(10000*x + 100000)
```



4. **Discuss & Create**: Based on what you did in task 3, complete the challenges in **TASK 4** in **Jupyter**. Take turns.



Be creative and have fun!

What do you notice about the red text and what appears below the cells? What if you changed the red text?

Have you played the guessing game before?

2.1. Explorando cómo se programa en Python



1. Practica programar con Python en **Jupyter**. Abre la terminal `>` Ve al directorio AOLME y escribe: `jupyter notebook`. Presiona Enter, y en Jupyter abre el folder de la Sesión 2. Selecciona **New** y luego **Python 3**.



Copy & Paste

1. **Select**
2. **Copy**
3. **Paste**

Haz click acá siempre para guardar el trabajo de tu equipo.

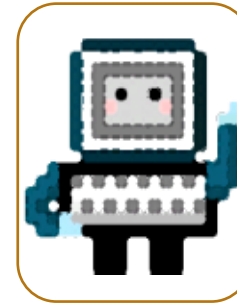
```
In [ ]: # Exponentiation example
print(2**3)
```

Las celdas son espacios donde puedes entrar información. Puedes copiar y borrar celdas

En el documento nuevo, navega **Jupyter** explorando qué hace cada icono en la barra de tareas en. *¿Qué es una celda?*

2. Para **jugar** al *Guessing Game*:

- (a) Abre la carpeta o folder de la Sesión 2 en **Jupyter**
- (b) En **Task 2**, selecciona la celda llamada: **EXAMPLE with game code**.
- (c) Haz click en 'run'
- (d) Introduce los datos en la parte inferior de la celda.
- (e) Tomen turnos.
- (f) Limpian la celda haciendo click en 'run' para introducir nuevos datos.



Piensa y habla:
¿Cómo funciona?

3. Juega y corre las celdas **CELLS A-C** en **Task 3**. *¿Qué hace el comando print?*

¿Por qué cambia de color la celda?

Estas cajas son celdas (de Python o texto). Al inicio algunas tienen: `'In []'` y otras no. *¿Por qué?*

TASK 3: Comparing Python Cells & Using 'print' Commands

```
In [ ]: # CELL A: When you type "#" at the beginning of a line, it creates a COMMENT.
# The computer does not process comments.
# USE COMMENTS TO DESCRIBE WHAT YOU NOTICE.
# Computers process code in order, line by line. See below:
x = 5
print(x)

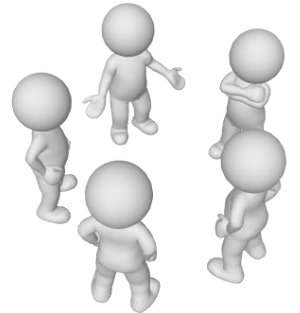
# While in this cell, click on the play button and run the code. What happens?
# After running this code, clear cell and print other numbers.
```

```
In [ ]: # CELL B: Strings are sets of programmed text in this cell.
# try this code and run it, what happens? What at the code below doing?
name = input("What is your name? ")
hi = "Hello " + name + "!" # Addition is concatenation
print(hi)
```

```
In [*]: # CELL C: Python can process complex expressions like:
x = 100
print(10000*x + 100000)
```



4. **Dialoga & Crea:** En base a lo hecho y aprendido en task 3, en **Task 4**, escriban su propio código. Tomen turnos para escribir.



Sean creativ@s y disfruten!

¿Qué notas acerca del texto rojo y lo que pasa abajo de cada celda? ¿Qué pasa si cambias el texto rojo?

¿Has jugado al guessing game antes?