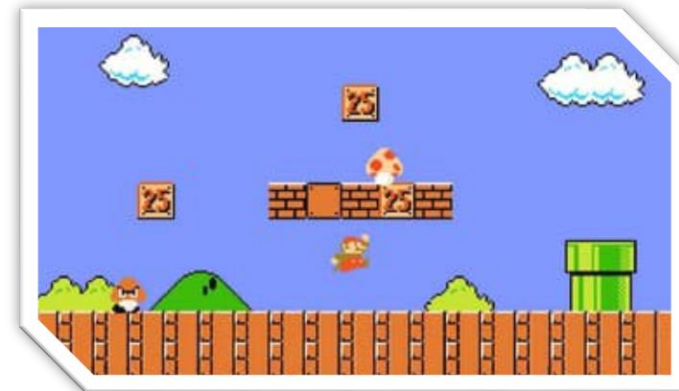
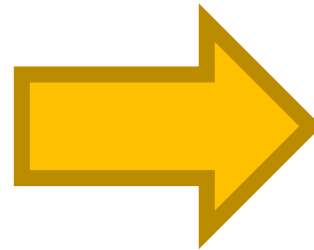


Python libraries

From terminal to gaming

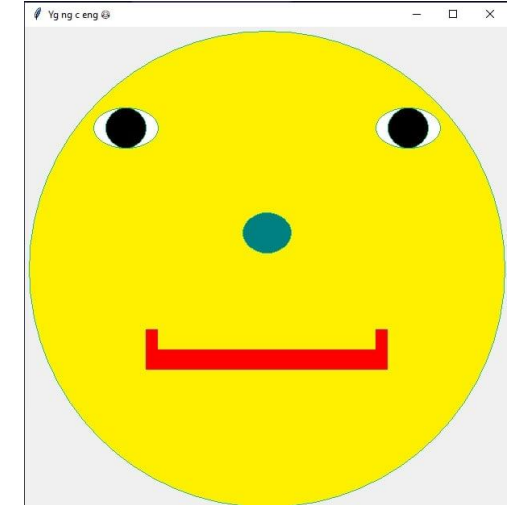
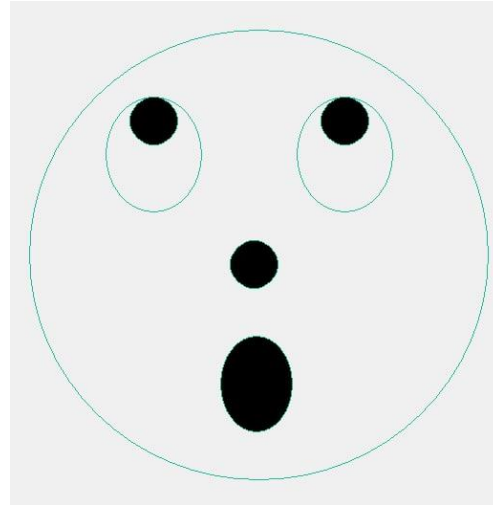
```
vivek@nixcraft-asus:~$ ls -ld projects/
drwxr-xr-x 2 vivek vivek 4096 Nov 21 18:54 projects/
vivek@nixcraft-asus:~$ ls -ld $HOME/data/
drwxr-xr-x 2 vivek vivek 4096 Nov 21 18:54 /home/vivek/data/
vivek@nixcraft-asus:~$ ls -l ~/projects/
app1.c app1.h hello.c hello.h
vivek@nixcraft-asus:~$
vivek@nixcraft-asus:~$ rmdir -v /home/vivek/data/
rmdir: removing directory, '/home/vivek/data/'
vivek@nixcraft-asus:~$
vivek@nixcraft-asus:~$ rmdir $HOME/projects/
rmdir: failed to remove '/home/vivek/projects/': Directory not empty
vivek@nixcraft-asus:~$
vivek@nixcraft-asus:~$ rm -rfv $HOME/projects/
removed '/home/vivek/projects/hello.c'
removed '/home/vivek/projects/app1.h'
removed '/home/vivek/projects/app1.c'
removed '/home/vivek/projects/hello.h'
removed directory '/home/vivek/projects/'
vivek@nixcraft-asus:~$
vivek@nixcraft-asus:~$ ls -l -/([data,projects])
ls: cannot access '/home/vivek/data': No such file or directory
ls: cannot access '/home/vivek/projects': No such file or directory
vivek@nixcraft-asus:~$
```

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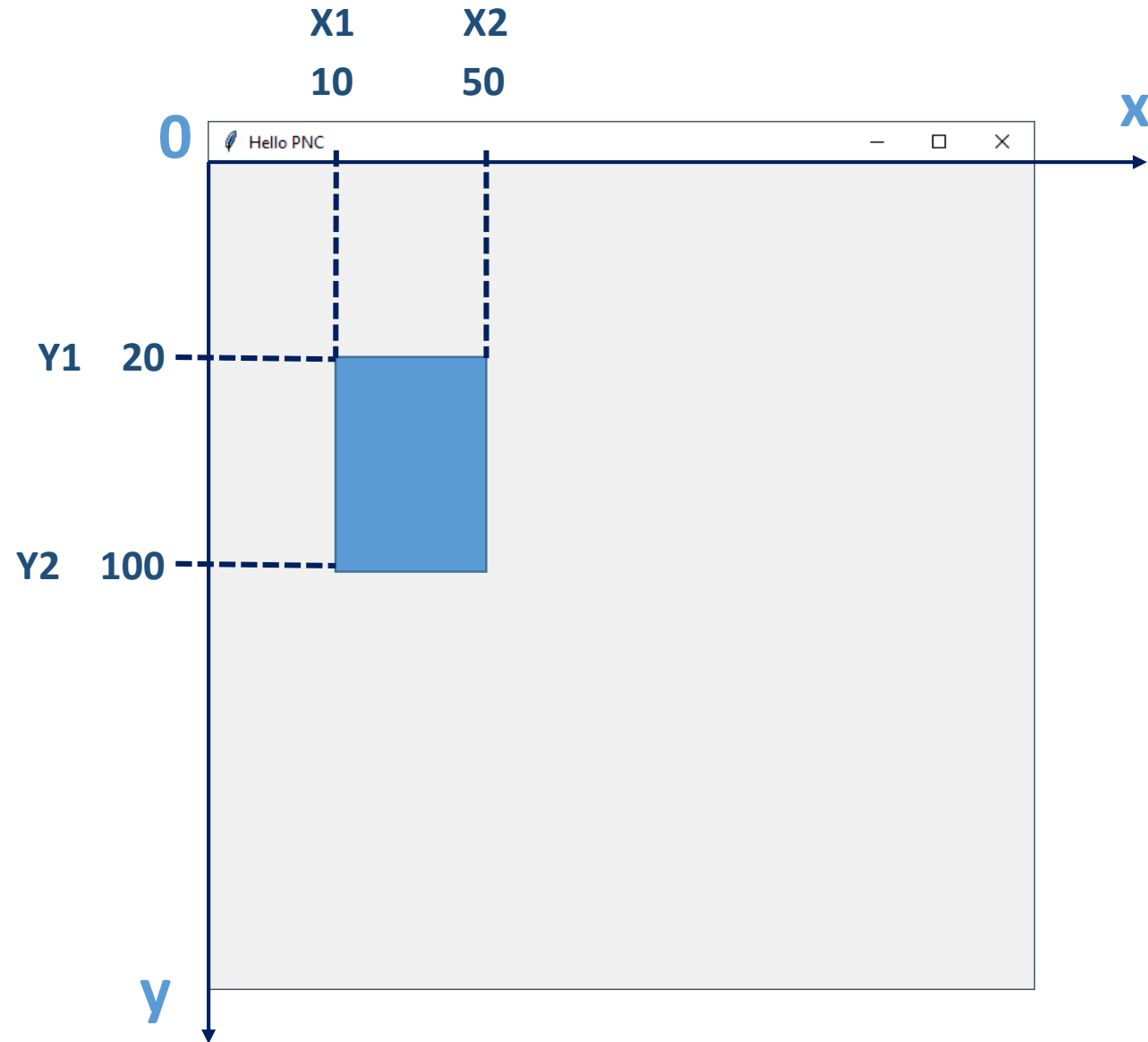
TODO STARTER :: Display the best art works from 3 students

Student works



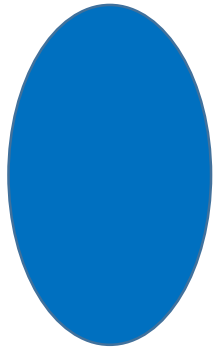
```
create_rectangle(x1, y1, x2, y2, optional parameters...)
```

```
create_rectangle(10, 20, 50, 100, fill="#0000FF")
```

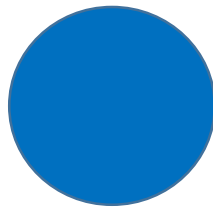


Quiz

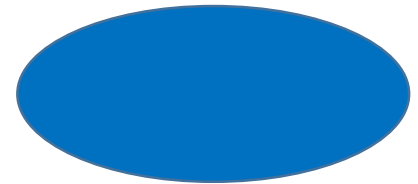
```
canvas.create_oval(50, 50, 150, 100, fill="#0000FF")
```



A



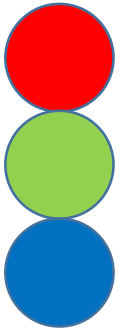
B



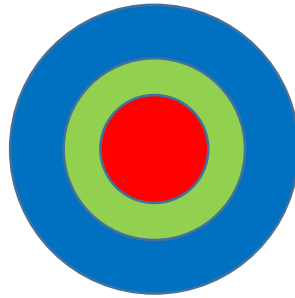
C

Quiz

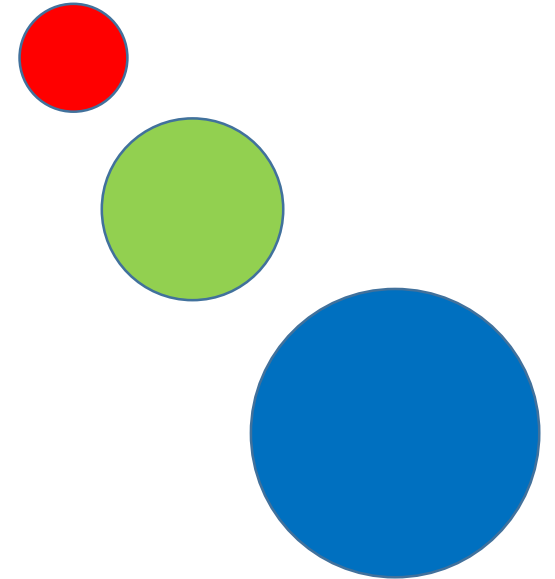
```
canvas.create_oval(50, 50, 100, 100, fill="#FF0000")  
canvas.create_oval(100, 100, 200, 200, fill="#00FF00")  
canvas.create_oval(200, 200, 400, 400, fill="#0000FF")
```



A



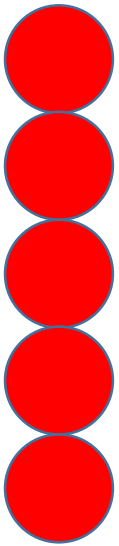
B



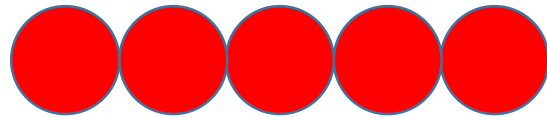
C

Quiz

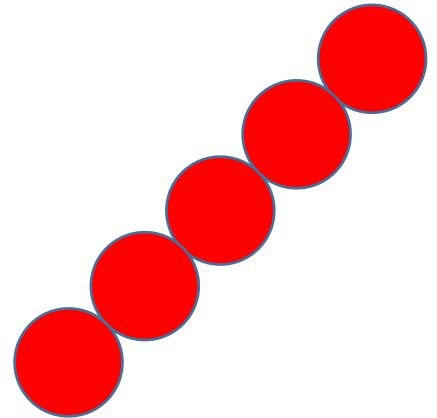
```
for index in range(0,5):  
    canvas.create_oval(index * 50, 50, 50 + (index * 50), 100, fill="#FF0000")
```



A



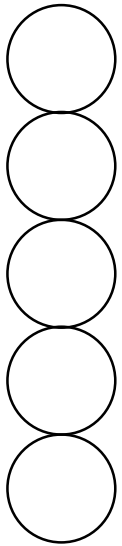
B



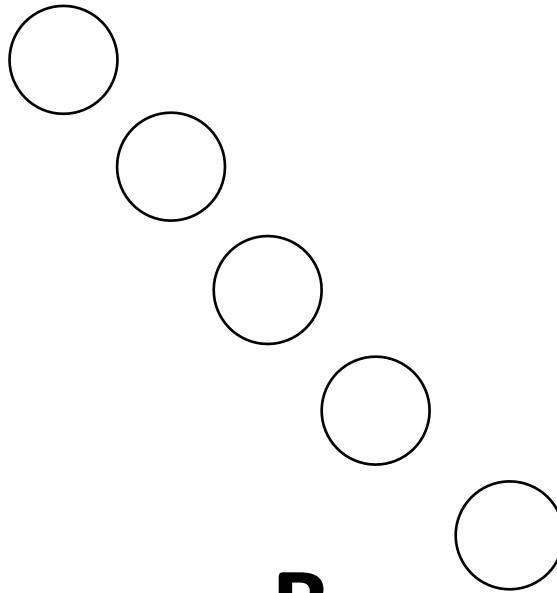
C

Quiz

```
for index in range(0,5):  
    canvas.create_oval(index * 50, index * 50, 50 + (index * 50), 50 + (index * 50))
```



A



B

ERROR

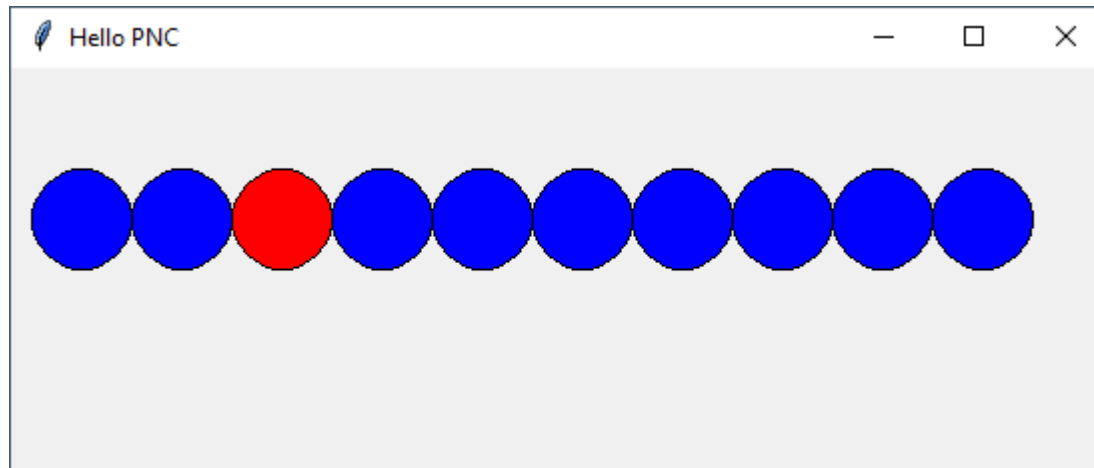
C

Practice

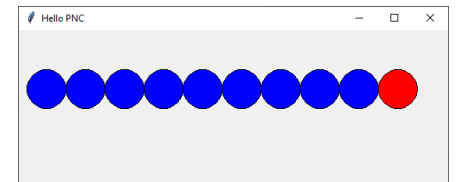
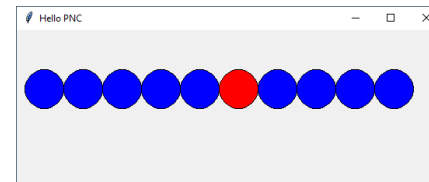
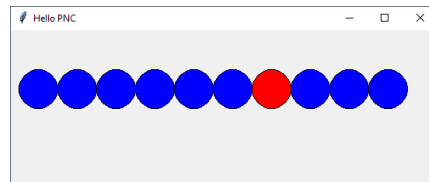
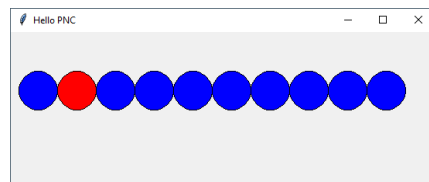
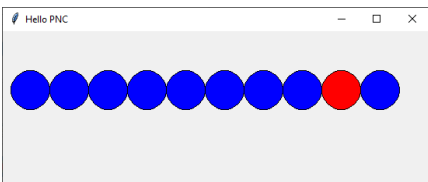
20 min

The line

- Using only **1 loop**, **1 if** and **1 random number** draw the following:



- The red circle should have **different position everytime you run** the code.

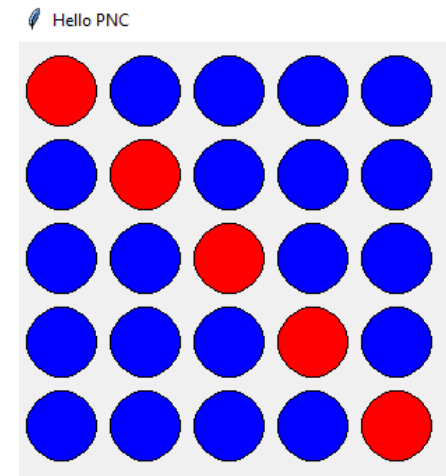
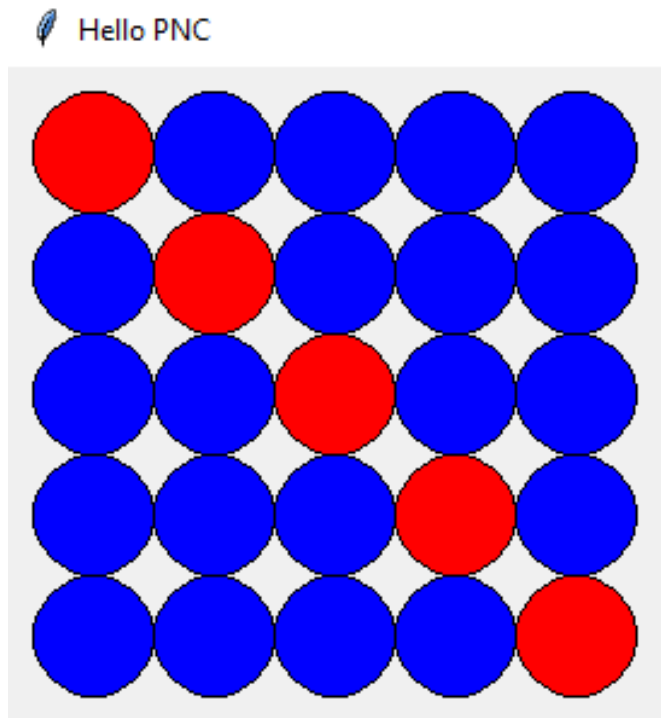


Practice

20 min

The grid

- Using only **2 loops** and **1 if/else**, draw the following :



Bonus: Can you add **margins** between the circles ? ➔

Practice

20 min

The colorful grid with different square size

- Using :
 - 2 loops
 - 1 if and 1 elif
 - an array of colors.
 - a random number
- **Tips :** Start by doing the border of the square

