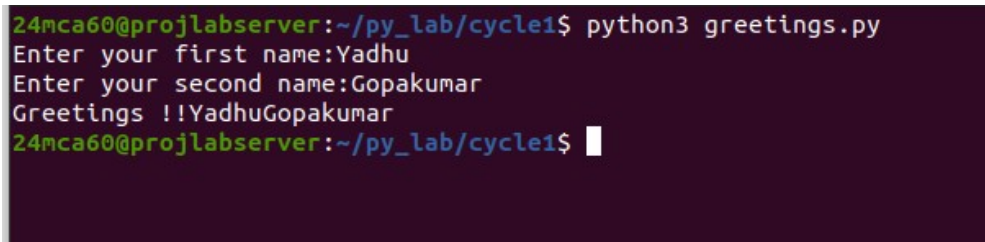


Program:

```
f_name=input("Enter your first name:")  
l_name=input("Enter your second name:")  
  
print(f"Greetings !!{f_name}{l_name}")
```

Output:

A terminal window with a dark purple background. The prompt is '24mca60@projlabserver:~/py_lab/cycle1\$'. The user enters 'python3 greetings.py'. The program prompts 'Enter your first name:' and the user enters 'Yadhu'. The program prompts 'Enter your second name:' and the user enters 'Gopakumar'. The program outputs 'Greetings !!YadhuGopakumar'. The prompt '24mca60@projlabserver:~/py_lab/cycle1\$' is shown again with a cursor.

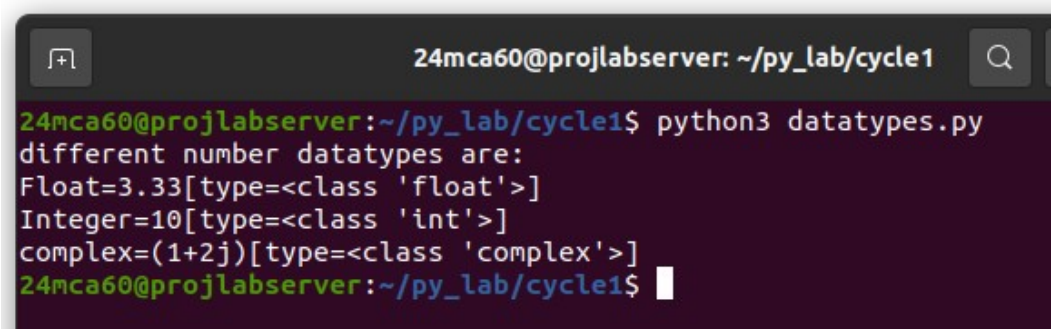
```
24mca60@projlabserver:~/py_lab/cycle1$ python3 greetings.py  
Enter your first name:Yadhu  
Enter your second name:Gopakumar  
Greetings !!YadhuGopakumar  
24mca60@projlabserver:~/py_lab/cycle1$
```

Program:

```
p_int=10
p_float=3.33
p_comp=1+2j

print("different number datatypes are:")
print(f"Float={p_float}[type={type(p_float)}]")
print(f"Integer={p_int}[type={type(p_int)}]")
print(f"complex={p_comp}[type={type(p_comp)}]")
```

Output:

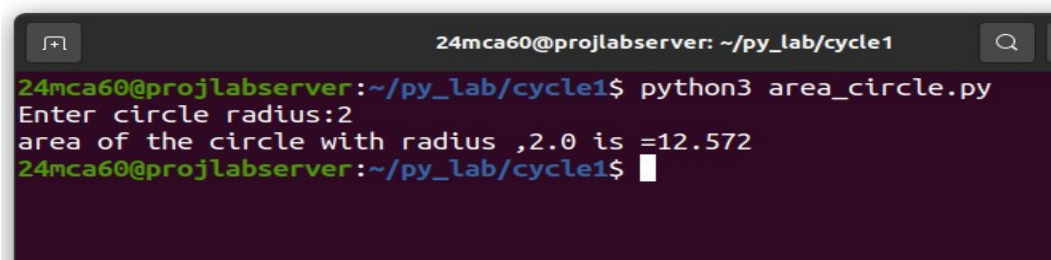
A terminal window with a dark background. The title bar shows '24mca60@projlabserver: ~/py_lab/cycle1'. The prompt is '24mca60@projlabserver:~/py_lab/cycle1\$'. The command 'python3 datatypes.py' has been executed. The output is: 'different number datatypes are:', 'Float=3.33[type=<class \'float\'>]', 'Integer=10[type=<class \'int\'>]', and 'complex=(1+2j)[type=<class \'complex\'>]'. The prompt is now '24mca60@projlabserver:~/py_lab/cycle1\$' with a cursor.

```
24mca60@projlabserver: ~/py_lab/cycle1
24mca60@projlabserver:~/py_lab/cycle1$ python3 datatypes.py
different number datatypes are:
Float=3.33[type=<class 'float'>]
Integer=10[type=<class 'int'>]
complex=(1+2j)[type=<class 'complex'>]
24mca60@projlabserver:~/py_lab/cycle1$
```

Program:

```
r=float(input("Enter circle radius:"))
if r>0:
    print(f"area of the circle with radius ,{r} is ={3.143*r*r}")
else:
    print("invalid input")
```

Output:

A terminal window with a dark background and light-colored text. The window title is "24mca60@projlabserver: ~/py_lab/cycle1". The prompt is "24mca60@projlabserver:~/py_lab/cycle1\$". The user enters "python3 area_circle.py". The program outputs "Enter circle radius:2" and "area of the circle with radius ,2.0 is =12.572". The prompt returns to "24mca60@projlabserver:~/py_lab/cycle1\$".

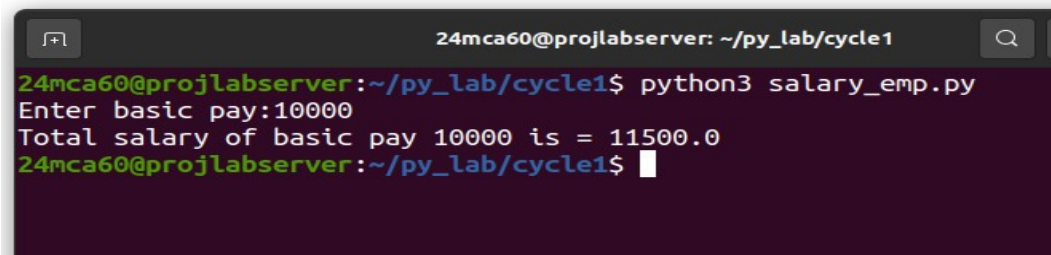
```
24mca60@projlabserver: ~/py_lab/cycle1
24mca60@projlabserver:~/py_lab/cycle1$ python3 area_circle.py
Enter circle radius:2
area of the circle with radius ,2.0 is =12.572
24mca60@projlabserver:~/py_lab/cycle1$
```

Program:

```
bp=int(input("Enter basic pay:"))

if bp<0:
    print("Invalid input!!")
else:
    HRA=bp*0.1
    TA=bp*0.05
    T_Salary=bp+HRA+TA
    print(f"Total salary of basic pay {bp} is = {T_Salary}")
```

Output:

A terminal window with a dark background and light-colored text. The title bar at the top reads "24mca60@projlabserver: ~/py_lab/cycle1". The terminal shows the command "python3 salary_emp.py" being executed. The prompt "24mca60@projlabserver:~/py_lab/cycle1\$" is followed by the input "Enter basic pay:10000". The output of the script is "Total salary of basic pay 10000 is = 11500.0". The prompt is then followed by a cursor.

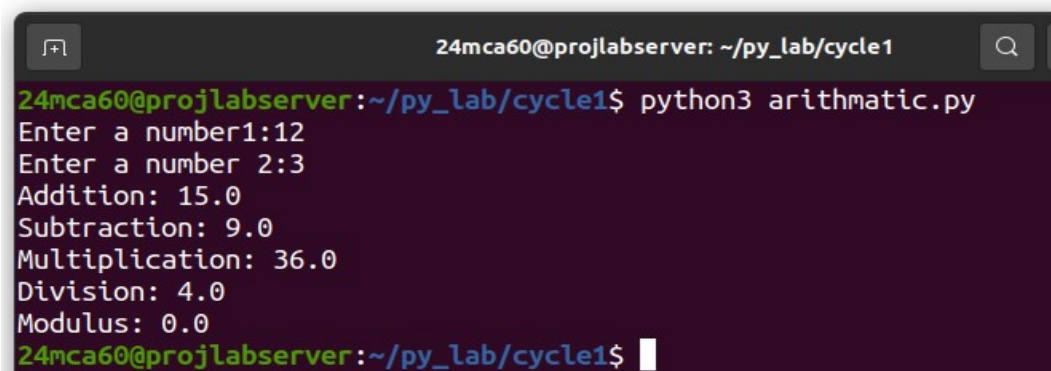
```
24mca60@projlabserver: ~/py_lab/cycle1
24mca60@projlabserver:~/py_lab/cycle1$ python3 salary_emp.py
Enter basic pay:10000
Total salary of basic pay 10000 is = 11500.0
24mca60@projlabserver:~/py_lab/cycle1$
```

Program:

```
num1=float(input("Enter a number1:"))  
num2=float(input("Enter a number 2:"))
```

```
print("Addition:",num1+num2)  
print("Subtraction:",num1-num2)  
print("Multiplication:",num1*num2)  
print("Division:",num1/num2)  
print("Modulus:",num1%num2)
```

Output:

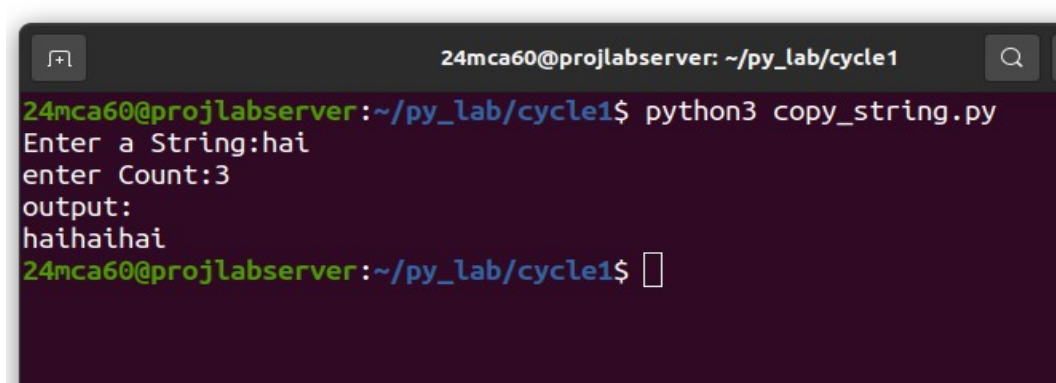
A terminal window with a dark purple background. The title bar at the top reads "24mca60@projlabserver: ~/py_lab/cycle1". The terminal shows the command "python3 arithmetic.py" being executed. The output consists of six lines: "Enter a number1:12", "Enter a number 2:3", "Addition: 15.0", "Subtraction: 9.0", "Multiplication: 36.0", and "Division: 4.0". The prompt "24mca60@projlabserver:~/py_lab/cycle1\$" is visible at the bottom, followed by a cursor.

```
24mca60@projlabserver: ~/py_lab/cycle1  
24mca60@projlabserver:~/py_lab/cycle1$ python3 arithmetic.py  
Enter a number1:12  
Enter a number 2:3  
Addition: 15.0  
Subtraction: 9.0  
Multiplication: 36.0  
Division: 4.0  
24mca60@projlabserver:~/py_lab/cycle1$
```

Program:

```
s=input("Enter a String:")
n=int(input("enter Count:"))
print(f"output:\n{s*n}")
```

Output:

A terminal window with a dark purple background. The title bar at the top reads "24mca60@projlabsrver: ~/py_lab/cycle1". The terminal shows the execution of a Python script. The prompt "24mca60@projlabsrver:~/py_lab/cycle1\$" is followed by the command "python3 copy_string.py". The program then prompts for input: "Enter a String:hai", "enter Count:3", and "output:". The final output is "haihaihai". The prompt "24mca60@projlabsrver:~/py_lab/cycle1\$" is followed by a cursor.

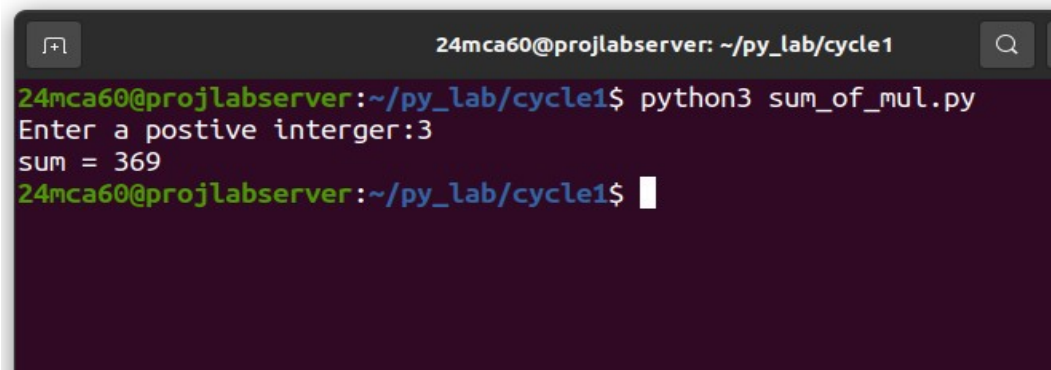
```
24mca60@projlabsrver: ~/py_lab/cycle1
24mca60@projlabsrver:~/py_lab/cycle1$ python3 copy_string.py
Enter a String:hai
enter Count:3
output:
haihaihai
24mca60@projlabsrver:~/py_lab/cycle1$
```

Program:

```
n=input("Enter a postive interger:")
sum=0
for i in range(1,4):
    sum=sum+int(n*i)

print(f"sum = {sum}")
```

Output:

A screenshot of a terminal window with a dark background. The title bar at the top shows the user '24mca60' on a 'projlabserver' at the directory '~/py_lab/cycle1'. The terminal text shows the command 'python3 sum_of_mul.py' being executed. The program prompts 'Enter a postive interger:' and the user enters '3'. The program then outputs 'sum = 369'. The prompt returns to the shell.

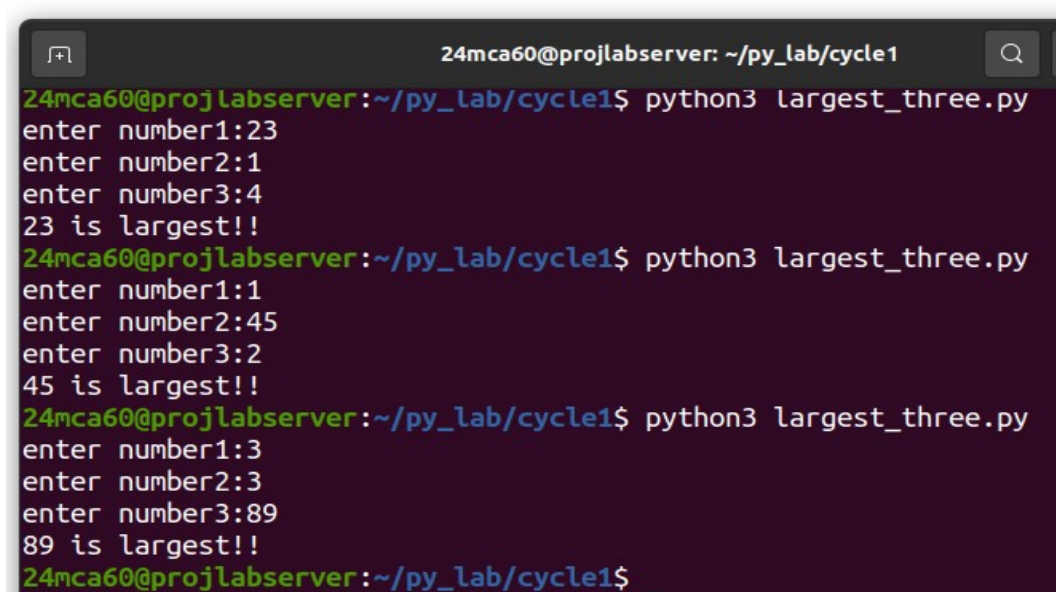
```
24mca60@projlabserver: ~/py_lab/cycle1
24mca60@projlabserver:~/py_lab/cycle1$ python3 sum_of_mul.py
Enter a postive interger:3
sum = 369
24mca60@projlabserver:~/py_lab/cycle1$
```

Program:

```
num1=int(input("enter number1:"))
num2=int(input("enter number2:"))
num3=int(input("enter number3:"))

if(num1>=num2) and (num1>=num3):
    print(f"{num1} is largest!!")
elif(num2>=num1) and (num2>=num3):
    print(f"{num2} is largest!!")
else:
    print(f"{num3} is largest!!")
```

Output:

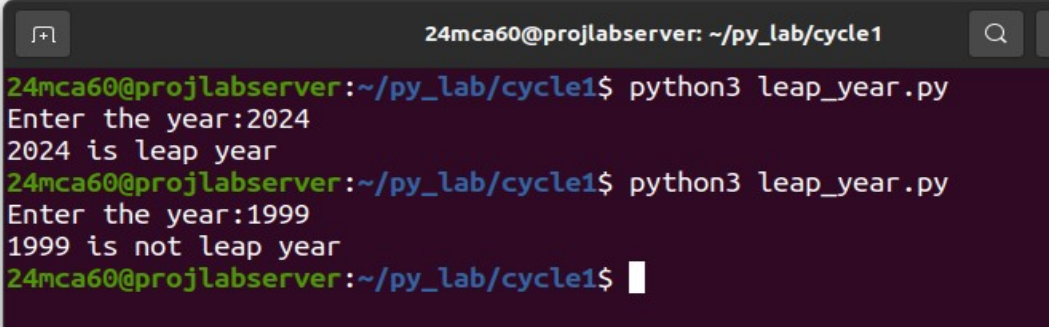
A terminal window with a dark background and light-colored text. The window title is "24mca60@projlabserver: ~/py_lab/cycle1". The terminal shows three separate runs of a Python script named "largest_three.py". In each run, the user is prompted to enter three numbers, and the script outputs the largest one. The first run shows inputs 23, 1, and 4, with the output "23 is largest!!". The second run shows inputs 1, 45, and 2, with the output "45 is largest!!". The third run shows inputs 3, 3, and 89, with the output "89 is largest!!".

```
24mca60@projlabserver: ~/py_lab/cycle1
24mca60@projlabserver:~/py_lab/cycle1$ python3 largest_three.py
enter number1:23
enter number2:1
enter number3:4
23 is largest!!
24mca60@projlabserver:~/py_lab/cycle1$ python3 largest_three.py
enter number1:1
enter number2:45
enter number3:2
45 is largest!!
24mca60@projlabserver:~/py_lab/cycle1$ python3 largest_three.py
enter number1:3
enter number2:3
enter number3:89
89 is largest!!
24mca60@projlabserver:~/py_lab/cycle1$
```


Program:

```
nyr=int(input("Enter the year:"))
if(yr>0):
    if(yr%4==0) or (yr%400==0):
        print(f"{yr} is leap year")
    else:
        print(f"{yr} is not leap year")
else:
    print("Invalid input!!")
```

Output:

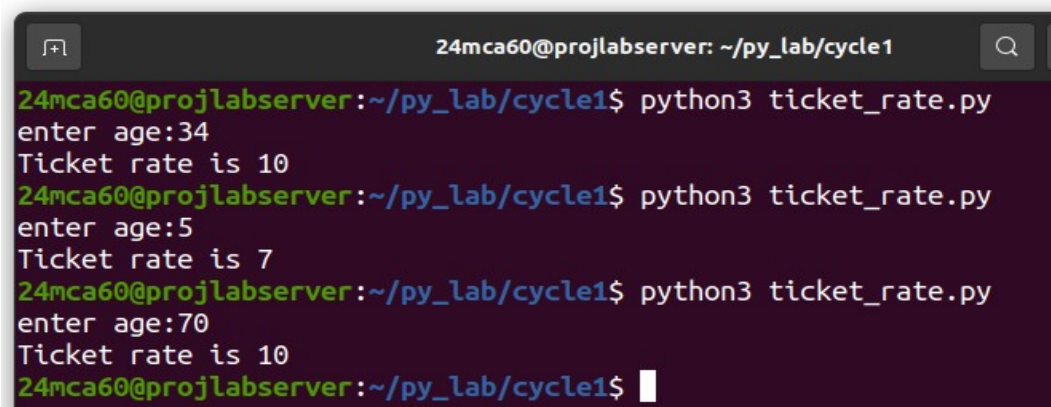
A terminal window with a dark purple background. The title bar at the top shows '24mca60@projlabserver: ~/py_lab/cycle1'. The terminal content shows two runs of a Python script. In the first run, the user enters '2024' and the output is '2024 is leap year'. In the second run, the user enters '1999' and the output is '1999 is not leap year'. The prompt '24mca60@projlabserver:~/py_lab/cycle1\$' is visible at the end of each line.

```
24mca60@projlabserver: ~/py_lab/cycle1$ python3 leap_year.py
Enter the year:2024
2024 is leap year
24mca60@projlabserver:~/py_lab/cycle1$ python3 leap_year.py
Enter the year:1999
1999 is not leap year
24mca60@projlabserver:~/py_lab/cycle1$
```

Program:

```
age=int(input("enter age:"))
if age>0:
    if age<10:
        print("Ticket rate is 7")
    elif(age>=10) or (age<=60):
        print("Ticket rate is 10")
    else:
        print("Ticket rate is 5")
else:
    print("Invalid age")
```

Output:

A terminal window with a dark background and light-colored text. The window title is "24mca60@projlabserver: ~/py_lab/cycle1". The terminal shows three runs of a Python script named "ticket_rate.py". In each run, the user is prompted to "enter age:". The first run shows an input of 34 and an output of "Ticket rate is 10". The second run shows an input of 5 and an output of "Ticket rate is 7". The third run shows an input of 70 and an output of "Ticket rate is 10". The prompt "24mca60@projlabserver:~/py_lab/cycle1\$" is visible at the end of each line.

```
24mca60@projlabserver:~/py_lab/cycle1$ python3 ticket_rate.py
enter age:34
Ticket rate is 10
24mca60@projlabserver:~/py_lab/cycle1$ python3 ticket_rate.py
enter age:5
Ticket rate is 7
24mca60@projlabserver:~/py_lab/cycle1$ python3 ticket_rate.py
enter age:70
Ticket rate is 10
24mca60@projlabserver:~/py_lab/cycle1$
```

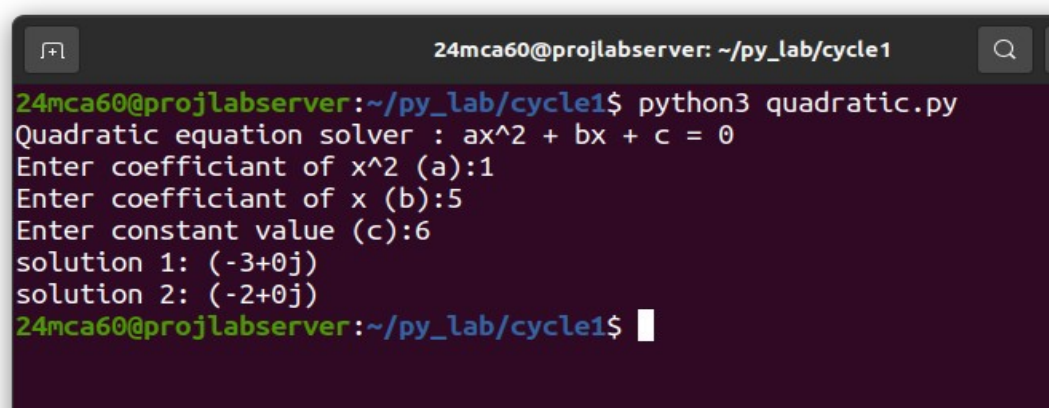
Program:

```
import cmath

print("Quadratic equation solver :  $ax^2 + bx + c = 0$ ")
a=float(input("Enter coefficient of  $x^2$  (a):"))
b=float(input("Enter coefficient of  $x$  (b):"))
c=float(input("Enter constant value (c):"))

d=(b**2)-(4*a*c)
sol1=(-b-cmath.sqrt(d))/(2*a)
sol2=(-b+cmath.sqrt(d))/(2*a)
print(f"solution 1: {sol1}")
print(f"solution 2: {sol2}")
```

Output:

A terminal window with a dark background and light text. The title bar at the top reads "24mca60@projlabsrver: ~/py_lab/cycle1". The terminal shows the command "python3 quadratic.py" being executed. The program prompts for coefficients: "Enter coefficient of x^2 (a):1", "Enter coefficient of x (b):5", and "Enter constant value (c):6". It then outputs "solution 1: (-3+0j)" and "solution 2: (-2+0j)". The prompt "24mca60@projlabsrver:~/py_lab/cycle1\$" is visible at the bottom.

```
24mca60@projlabsrver: ~/py_lab/cycle1
24mca60@projlabsrver:~/py_lab/cycle1$ python3 quadratic.py
Quadratic equation solver :  $ax^2 + bx + c = 0$ 
Enter coefficient of  $x^2$  (a):1
Enter coefficient of  $x$  (b):5
Enter constant value (c):6
solution 1: (-3+0j)
solution 2: (-2+0j)
24mca60@projlabsrver:~/py_lab/cycle1$
```