

Question 1:

Write a program to input a number from the terminal and check whether a number is an integer or not.

```
In [3]: number=float(input("Enter the number: "))
#I provide float here because user may enter float too.
if isinstance(number,int):
    print("it is an integer")
else:
    print("it is not an integer")
```

Enter the number: 22
it is an integer

```
In [4]: number=float(input("Enter the number: "))
#I provide float here because user may enter float too.
if isinstance(number,int):
    print("it is an integer")
else:
    print("it is not an integer")
```

Enter the number: 55.6
it is not an integer

Lets slightly edit the code

```
In [5]: number=float(input("Enter the number: "))
#I provide float here because user may enter float too.
if isinstance(number,int):
    print("it is an integer")
elif isinstance(number, float):
    print("It is an float not an integer")
else:
    print("Invalid number or it is an string")
```

Enter the number: 55.5
It is an float not an integer

Question 2:

Write a program to input a word and find out if it is palindrome.

A word is palindrome if it reads the same from both backward and forward. EVE HANNAH BOB, ROTATOR, ANNA, etc. are some of palindrome words

Enter a word [press cancel to exit]: Hannah palindrome

Enter a word [press cancel to exit]: John not palindrome

```
In [9]: word=input("Enter choice of your word to check palindrome\n")
if word==word.reverse():
    print(word,"palindrome")
else:
    print(word,"not palindrome")
```

Enter choice of your word to check palindrome
bob

```
-----
AttributeError                                Traceback (most recent call last)
Cell In[9], line 2
      1 word=input("Enter choice of your word to check palindrome\n")
----> 2 if word==word.reverse():
      3     print(word,"palindrome")
      4 else:
```

AttributeError: 'str' object has no attribute 'reverse'

```
In [10]: #we get error because str does not has reverse so we have to use[::-1]
word=input("Enter choice of your word to check palindrome\n")
if word==word[::-1]:
    print(word,"palindrome")
else:
    print(word,"not palindrome")
```

Enter choice of your word to check palindrome
bob
bob palindrome

```
In [11]: #But, what if we provide input Bob?
word=input("Enter choice of your word to check palindrome\n")
if word==word[::-1]:
    print(word,"palindrome")
else:
    print(word,"not palindrome")
```

Enter choice of your word to check palindrome
Bob
Bob not palindrome

```
In [13]: #python is case sensitive so it will take B and b as different, lets solve this problem
word=input("Enter choice of your word to check palindrome\n")
if word.upper()==word.upper()[::-1]:
    print(word,"palindrome")
else:
    print(word,"not palindrome")
```

Enter choice of your word to check palindrome
Bob
Bob palindrome

Question 3:

Enter the temperature in celsius, and convert the temperature to fahrenheit. Finally, display different fever levels of the user.

fahrenheit = 9/5*celsius + 32

Conditions:

Temperature	Remarks
below 96F	Low Temperature
96F to 98F	Normal Temperature
99F to 101F	Normal Fever
102F to 104F	High Fever
above 104F	Critical

```
In [15]: celsius=int(input("Enter the temperature in celsius: "))
fah = 9/5*celsius + 32
if fah<96:
    print("Low Temperature")
elif 96<fah<=98:
    print("Normal Temperature")
elif 99<fah<=101:
    print("Normal Fever")
elif 102<fah<=104:
    print("High fever")
elif 104<fah:
    print("critical")
```

Enter the temperature in celsius: 36
Normal Temperature

```
In [16]: #lets see fahrenheit value too:
celsius=int(input("Enter the temperature in celsius: "))
fah = 9/5*celsius + 32
print("Temperature in fahrenheit is: ",fah)
if fah<96:
    print("Low Temperature")
elif 96<fah<=98:
    print("Normal Temperature")
elif 99<fah<=101:
    print("Normal Fever")
elif 102<fah<=104:
    print("High fever")
elif 104<fah:
    print("critical")
```

Enter the temperature in celsius: 45
Temperature in fahrenheit is: 113.0
critical

Question 4:

Write a program that accepts a number from the terminal and checks whether it is a multiple of both 3,4, and 5 or not

```
In [19]: num=int(input("Enter the number: "))
```

```
if num%3==0 and num%4==0 and num%5==0:
    print("It is a multiple of 3,4 and 5")
else:
    print("it is not a multiple of 3, 4 and 5")
```

Enter the number: 33
it is not a multiple of 3, 4 and 5

Question 5:

Write a program that asks a user score in percentage and display the grade with some remarks as follows:

Temperature	Grade	Remarks
below 60%	C	Work hard otherwise you're going to fail the exam.
61% to 70%	B	Your result is satisfactory.
71% to 80%	B+	Good Job, Keep doing better.
81% to 90%	A	Amazing Your hard work paid off.
above 90%	A+	Excellent work, Congratulations topper!!

```
In [1]: score=int(input("Enter the percentage you achieved in exam: "))
if score<60:
    print("C: Work hard otherwise you are going to fail the exam")
elif 61<=score<=70:
    print("B: Your result is satisfactory")
elif 71<=score<=80:
    print("B+: Good job, keep doing better")
elif 81<=score<=90:
    print("A: Amazing your hard work paid off")
else:
    print("A+: Excellent work")
```

Enter the percentage you achieved in exam: 98
A+: Excellent work

```
In [2]: score=int(input("Enter the percentage you achieved in exam: "))
if score<60:
    print("C: Work hard otherwise you are going to fail the exam")
elif 61<=score<=70:
    print("B: Your result is satisfactory")
elif 71<=score<=80:
    print("B+: Good job, keep doing better")
elif 81<=score<=90:
    print("A: Amazing your hard work paid off")
else:
    print("A+: Excellent work")
```

Enter the percentage you achieved in exam: 67
B: Your result is satisfactory

In []:

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