Lesson2. Practical

February 15, 2024

1 Python dasturlash tili

1.1 Amaliy

2 Pythonni o'rnatish

1. Windows OSga o'rgatish
2. Linux OSga o'rnatish
3. Mac OSga o'rnatish

3 Jupyter Notebook

4 Jupyter Notebookning afzaliklari

1. Bitta faylda ham kodni ham `markdown` formatdagi matnlarni kiritish mumkin
2. Bir nechta tillar bilan ishlash imkoniyati (Python, Sql, R va boshqalar)
3. Dars o'tish uchun qulay
4. Sun'iy intellekt sohasidagilar uchun modelni yaratib olish uchun qulay
5. Ortiqcha IDE yoki kodlarni tahrirlovchisi shart emas
6. va boshqalar

4.1 Jupyter Notebookni o'rnatish

Terminalga quyidagi buyroq beriladi

```
pip install jupyterlab
```

5 Namunaviy masalalar

1. 'Salom olam' matnini chop qilish.

1-usul:

[ ]:
```
print('Salom olam')
```

```
Salom olam
```

2-usul:

[ ]:
```
text = 'Salom olam'
print(text)
```

```
Salom olam
```

2. Baxromning 10 so'm puli bor edi. Unga otasi yana navruz bayrami arafasida 15 so'm berdi. Unda jami qancha pul bo'ldi? Ushbu jarayonni hisoblab ekranga chiqaruvchi dastur tuzing.

1-usul:

[ ]:
```
old_money = 10
new_money = 15
all_money = old_money + new_money
print("Baxromning jami puli:", all_money, "so'm")
```

```
Baxromning jami puli: 25 so'm
```

2-usul:

[ ]:
```
old_money = 10
new_money = 15
print("Baxromning jami puli:", old_money + new_money, "so'm")
```

```
Baxromning jami puli: 25 so'm
```

3-usul:

[ ]:
```
old_money = int(input("Mavjud pul miqdorini kiriting: "))
new_money = int(input("Otasi bergan pul miqdori: "))
all_money = old_money + new_money
print("Baxromning jami puli:", all_money, "so'm")
```

```
Baxromning jami puli: 25 so'm
```

4-usul:

[ ]:
```
str_money = input("Mavjud pul miqdorini kiriting: ")
old_money = int(str_money)
str_money = input("Otasi bergan pul miqdori: ")
new_money = int(str_money)
all_money = old_money + new_money
print("Baxromning jami puli:", all_money, "so'm")
```

```
Baxromning jami puli: 25 so'm
```

3. Tikuvchilik firmasida 7 ta ko'ylak tikish uchun 21 metr mato sarflandi. 9 ta shunday ko'ylak tikish uchun necha metr mato kerak bo'ladi.

[ ]:
```
n_dress = 7
amount_cloth = 21
amount_dress = amount_cloth / n_dress
for_9 = amount_dress * 9
```

```
print("9 ta ko'ylak uchun ", for_9, " meter mato ketadi...")
```

```
9 ta ko'ylak uchun  27.0  meter mato ketad…
```

Umumiy holi:

[ ]:
```
n_dress = int(input("Ko'ylaklar soni: "))
amount_cloth = int(input("Jami mato: "))
for_n = int(input("Nechta ko'ylak uchun: "))
amount_dress = amount_cloth / n_dress
for_9 = amount_dress * for_n
print("9 ta ko'ylak uchun ", for_9, " meter mato ketadi...")
```

```
9 ta ko'ylak uchun  27.0  meter mato ketad…
```

6 Masalalar yechish

1. Oldingi masalarni kiritish funksiyasi orqali qayta yechish
2. Sonlarni butun va qoldiqli bo'lishga doir masalalar
3. Vaqtga doir masalalar

7 Pythonda mantiqiy tur

[ ]:
```
print(10 > 9)
print(10 == 9)
print(10 < 9)
```

```
True
False
False
```

8 Butun bo'lish

[ ]:
```
n_dress = int(input("Ko'ylaklar soni: "))
amount_cloth = int(input("Jami mato: "))
for_n = int(input("Nechta ko'ylak uchun: "))
amount_dress = amount_cloth // n_dress
for_9 = amount_dress * for_n
print("9 ta ko'ylak uchun ", for_9, " meter mato ketadi...")
```

```
9 ta ko'ylak uchun  27  meter mato ketadi…
```

[ ]:
```
a = 15
b = 4
c = a / b
print(c)
```

3.75

[ ]:
```
a = 15
b = 4
c = a // b
print(c)
```

3

[ ]:
```
a = 17
b = 4
c = a % b
print(c)
```

1

[ ]:
```
n = 100
month = n // 30
print(month)
```

3

[ ]:
```
hours1 = 9
minutes1 = 15
seconds1 = 30

hours2 = 11
minutes2 = 47
seconds2 = 23

alltime_sec1 = hours1 * 60 * 60 + minutes1 * 60 + seconds1
alltime_sec2 = hours2 * 60 * 60 + minutes2 * 60 + seconds2

delta = alltime_sec2 - alltime_sec1
delta_hour = delta // 3600
delta_minutes = (delta - delta_hour * 3600) // 60
print(delta_hour, delta_minutes)
```

2 31

[ ]:
```
print(10 > 9)
print(10 < 9)
print(10 == 9)
```

True
False
False

[ ]:
```
a = 9
b = 10
c = a == bprint(type(a), type(b), type(c))
print(c)
```

```
False
```

[ ]:
```
a = 9
b = 10
c = a < b
print(c)
```

```
True
```

[ ]:
```
a = 9
b = 10
c = a >= b
print(c)
```

```
False
```

[ ]:
```
a = 9
b = 10
c = a <= b
print(c)
```

```
True
```

[ ]:
```
a = 'salom'
b = "salom"
c = """salom"""
print(a, b, c)
print(type(a), type(b), type(c))
```

```
salom salom salom
<class 'str'> <class 'str'> <class 'str'>
```