```
#Task_1
user_input = input()
num = int(input())
dic = {}
for i in range(len(user_input)):
  word = user_input[i:i+num]
  if (word in dic):
    dic[word]+=1
  else:
    dic[word] = 1
  if (i == (len(user_input) - num)):
    break
highest = [0,0]
count = 0
for k,v in dic.items():
  print(k,v)
  if (v > highest[1]):
    highest = [k,v]
  elif (v == highest[1]):
    count+=1
if (count>=2):
  print("No highest substring found.")
else:
  print("Highest substring: {}".format(highest[0]))


```

```
#Task_2
class Player:
  total_players = 0
  players_dict = {}
  player_details = 'No players available'

  @classmethod
  def update_player(cls):
    cls.total_players +=1
  @classmethod
  def add_player(cls,id,name,club,position, year):
    cls.players_dict[id] = [name,club,position,year]
    cls.player_details = cls.players_dict
  @classmethod
  def create_player(cls,name,club,position, year='Unknown'):
    return cls(name,club,position,year)

  def __init__(self,name,club,position, year='Unknown'):
    Player.update_player()
    self.no = Player.total_players
    self.name = name
```

```
    self.club = club
    self.position = position
    self.year = year
    self.id = '{}_{}_{}'.format(self.no,self.year,self.name.split()[-1])
    Player.add_player(self.id,self.name,self.club,self.position,self.year)
  def cheer_player(self):
    print("Let's cheer for {} who is a pride of {}".format(self.name,self.cl

  def __str__(self):
    returnable = "Player Details\nPlayer No: {}\nID: {}\nName: {}\nClub: {}\
    return returnable
#Write your code here
print(Player.player_details)
print("1.################################################")
ronaldo = Player("Ronaldo", "Man United", "Forward", "2021")
ronaldo.cheer_player()
print("2.------------------------------------------------")
messi = Player("Lionel Andrés Messi", "Barcelona", "Forward")
messi.cheer_player()
print("3.------------------------------------------------")
ramos = Player.create_player("Sergio Ramos", "PSG", "Defender","2021")
ramos.cheer_player()
print("4.================================================")
print(ronaldo)
print("5.================================================")
print(messi)
print("6.================================================")
print(ramos)
print("7.################################################")
print(Player.player_details)
```

```
#Task_3
class Game:
  agentCount=0
  def __init__(self,name,gameType):
    self.name = name
    self.gameType = gameType
  def formTeam(self):
    if Game.agentCount >= 5:
      return True
    else:
      return False
  def __str__(self):
    s = f"{self.name} is an {self.gameType} game.\n"
    s+= f"Number of agents in {self.name} is {Game.agentCount}\n"
    return s
#Write down your code here.
class Valorant(Game):
  def __init__(self,name,gameType):
```

```
    super().__init__(name,gameType)
    self.agents = {}
  def addAgent(self,*agents):
    for agent in agents:
      Game.agentCount +=1
      if (agent[1] not in self.agents.keys()):
        self.agents[agent[1]] = [[agent[0],agent[2]]]
      else:
        self.agents[agent[1]].append([agent[0],agent[2]])
  def __str__(self):
    returnable= super().__str__()
    returnable +="The agents are:\n".format(len(self.agents))
    for k,v in self.agents.items():
      returnable+= k +':\n'
      for i in range(len(v)):
        returnable+='Agent name: {}, Ultimate:{}\n'.format(v[i][0],v[i][1])
    return returnable[:-1]
  def formTeam(self):
    if (super().formTeam()):
      if (len(self.agents["Duelist"])>=2 and len(self.agents["Initiator"])>=
        print("We have enough agents to form a team.\nAlso we can form a per
      else:
        print("We have enough agents to form a team.\nBut we cannot form a p
    else:
      print("We do not have enough agents to form a team.")

#Do not change the given code
v = Valorant("Valorant","FPS")
v.addAgent(["Raze","Duelist","Showstopper"],["Sova","Initiator","Hunter's fu
print("1.==================================")
print(v)
print("2.==================================")
v.formTeam()
print("3.==================================")
v.addAgent(["Killjoy","Sentinel","Lockdown"])
v.addAgent(["Viper","Controller","Viper's pit"])
print("4.==================================")
print(v)
print("5.==================================")
v.formTeam()
print("6.==================================")
v.addAgent(["Breach","Initiator","Rolling thunder"])
v.formTeam()
print("7.==================================")
v.addAgent(["Jett","Duelist","Bladestorm"])
print(v)
print("8.==================================")
v.formTeam()
```

✓ 8s completed at 4:39 PM