## 分析一个水杯的属性和功能，使用类描述并创建对象

高度，容积，颜色，材质

能存放液体

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| class cup:  \_\_high=0  \_\_capacity=0  \_\_color=""  \_\_material=""   def setHigh(self,high):  if high>20 and high<40:  self.\_\_high=high  else:  print("没有该高度的水杯！！")   def getHigh(self):  return self.\_\_high   def setCapacity(self,capacity):  if capacity>0 and capacity<35:  self.\_\_capacity=capacity  else:  print("没有该容积的水杯！！")   def getCapacity(self):  return self.\_\_capacity   def setColor(self, color):  if color =="白":  self.\_\_color = color  elif color =="黑":  self.\_\_color = color  elif color =="红":  self.\_\_color = color  else:  print("没有该颜色的水杯！！")   def getColor(self):  return self.\_\_color   def setMaterial(self, material):  if material =="不锈钢":  self.\_\_material = material  elif material =="紫砂":  self.\_\_material = material  elif material =="陶瓷":  self.\_\_material = material  elif material=="玻璃":  self.\_\_material = material  else:  print("没有该材质的水杯！！")   def getMaterial(self):  return self.\_\_material   def depositaryliquid(self,rise):  if self.\_\_capacity>rise:  remaincapacity=self.\_\_capacity-rise  print("您的水杯容积为",self.\_\_capacity,"已经倒了",rise,"升的水！！还剩下",remaincapacity,"升的空间！！！")  else:  remaincapacity = rise-self.\_\_capacity  print("您的水杯容积为", self.\_\_capacity, "已经倒满了", "溢出", remaincapacity, "升的水！！！") mycup=cup()  mycup.setHigh(int(input("请输入您的水杯的高度："))) mycup.setCapacity(int(input("请输入您的水杯的容积："))) mycup.setColor(input("请输入您的水杯的颜色（仅有白、黑、红）：")) mycup.setMaterial(input("请输入您的水杯的材质（仅有不锈钢、紫砂、陶瓷、玻璃）：")) mycup.depositaryliquid(int(input("请输入您倒多少水："))) |

## 有笔记本电脑（屏幕大小，价格，cpu型号，内存大小，待机时长），行为（打字，打游戏，看视频）

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| import time  class laptop:  \_\_screen\_size=0.0  \_\_price=0.00  \_\_cputype=""  \_\_memory\_size=0  \_\_standby\_time=0.0  def setScreen\_size(self,screen\_size):  if screen\_size<11.6 and screen\_size>11.0:  self.\_\_screen\_size=11  elif screen\_size<12.5 and screen\_size>12.0:  self.\_\_screen\_size=12  elif screen\_size<13.4 and screen\_size>13.0:  self.\_\_screen\_size=13  elif screen\_size<14.5 and screen\_size>14.0:  self.\_\_screen\_size=14  elif screen\_size<15.6 and screen\_size>15.0:  self.\_\_screen\_size=15  elif screen\_size<20 and screen\_size>17:  self.\_\_screen\_size=17  elif screen\_size<=20:  self.\_\_screen\_size=20  else:  print("您的电脑屏幕不正确！！！")  def getScreen\_size(self):  return self.\_\_screen\_size   def setPrice(self,price):  if price>0:  self.\_\_price=price  else:  print("您的电脑价格不正确！！！")   def getPrice(self):  return self.\_\_price   def setCputype(self,cputype):  if cputype=="奔腾双核":  self.\_\_cputype=cputype  elif cputype=="赛扬双核":  self.\_\_cputype=cputype  elif cputype=="酷睿i3":  self.\_\_cputype=cputype  elif cputype=="酷睿i5":  self.\_\_cputype=cputype  elif cputype == "酷睿i7处理器":  self.\_\_cputype = cputype  elif cputype == "A6处理器":  self.\_\_cputype = cputype  elif cputype == "A8处理器":  self.\_\_cputype = cputype  elif cputype == "A10处理器":  self.\_\_cputype = cputype  elif cputype == "AMD六核处理器":  self.\_\_cputype = cputype   else:  print("您输入的电脑cpu型号不正确！！！")   def getCputype(self):  return self.\_\_cputype    def setMemory\_size(self,memory\_size):  if memory\_size==2:  self.\_\_memory\_size=memory\_size  elif memory\_size==4:  self.\_\_memory\_size=memory\_size  elif memory\_size == 8:  self.\_\_memory\_size = memory\_size  else:  print("您输入的电脑内存不正确！！！")   def getMemory\_size(self):  return self.\_\_memory\_size   def setStandby\_time(self,standby\_time):  if standby\_time<3000 and standby\_time>0:  self.\_\_standby\_time=standby\_time  else:  print("您输入的待机时长不正确！！！")   def getStandby\_time(self):  return self.\_\_standby\_time   def type(self,content):  print("您打出了：",content)   def playGame(self,gamename,hour):  if hour>0:  if gamename=="4399" :  print("正在启动4399~请稍等...")  for i in range(8):  print("\*")  time.sleep(2)  print("启动完成")  print("正在玩游戏中！")  for y in range(8):  print("$")  time.sleep(1)  print("您已经玩",gamename,"玩了",hour,"小时")  elif gamename=="wegame":  print("正在启动wegame~请稍等...")  for i in range(8):  print("\*")  time.sleep(2)  print("启动完成")  print("正在玩游戏中！")  for y in range(8):  print("$")  time.sleep(1)  print("您已经玩", gamename, "玩了", hour,"小时")  else:  print("您没有下载",gamename,"该游戏")  def watch\_video(self,player,videoname,hour):  if hour>0:  if player=="爱奇艺" :  print("正在启动爱奇艺~请稍等...")  for i in range(8):  print("\*")  time.sleep(2)  print("启动完成")  print("正在观看视频中！")  for y in range(4):  print("$")  time.sleep(1)  print("您已经观看",videoname,"看了",hour,"小时")  elif player=="芒果TV":  print("正在启动芒果TV~请稍等...")  for i in range(8):  print("\*")  time.sleep(2)  print("启动完成")  print("正在观看视频中！")  for y in range(4):  print("$")  time.sleep(1)  print("您已经观看", videoname, "看了", hour, "小时")  else:  print("您没有下载",player,"该播放器")  mylaptop=laptop() mylaptop.setScreen\_size(float(input("请输入您电脑的屏幕尺寸："))) mylaptop.setPrice(float(input("请输入您电脑的价格："))) mylaptop.setCputype(input("请输入您电脑的cpu型号：")) mylaptop.setMemory\_size(int(input("请输入您电脑的内存大小："))) mylaptop.setStandby\_time(float(input("请输入您电脑的待机时长："))) *# mylaptop.playGame(input("请输入您想玩的游戏："),int(input("请输入想玩的时长：")))* mylaptop.watch\_video(input("请输入播放器："),input("请输入您想看的电视剧："),int(input("清输入您想看多久："))) |

### 先构思面向对象版的中国工商银行系统