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1  """
2  CS241 Checkpoint B6
3  Written by Chad Macbeth
4  """
5
6  ### Represents a phone
7  class Phone:
8
9      ### Initialize a phone object
10     def __init__(self):
11         self.area_code = 0
12         self.prefix = 0
13         self.suffix = 0
14
15     ### Get the phone number from the user
16     def prompt_number(self):
17         self.area_code = int(input("Area Code: "))
18         self.prefix = int(input("Prefix: "))
19         self.suffix = int(input("Suffix: "))
20
21     ### Display the phone number
22     def display(self):
23         print("Phone info:")
24         print("{}{}{}-{}".format(self.area_code, self.prefix, self.suffix))
25
26     ### SmartPhone is a type of PPhone. SmartPhone IS-A Phone with additional information
27     ### such as email.
28     class SmartPhone(Phone):
29
30         ### Initialize a smart phone object
31         def __init__(self):
32             super().__init__() # Initialize base class components first!
33             self.email = ""
34
35         ### Get the smart phone information from the user
36         def prompt(self):
37             self.prompt_number() # Reuse! This prompt function can call
38                                 # the prompt_number function from the base class.
39                                 # We can say "self" because all the functions in
40                                 # the base
41                                 # class are part of the subclass now.
42             self.email = input("Email: ")
43
44         ### Display the smart phone information
45         def display(self):
46             super().display() # We can't say self.display here because there are
47                               # 2 display
48                               # functions now. This is okay, but we need to
49                               # tell python
50                               # which one we want.
51             print(self.email)
52
53     ### Test the classes above
54     def main():
55         phone = Phone()
56         print("Phone:")
57         phone.prompt_number()
58         print()
59         phone.display()
60         print()
61         print("Smart phone:")
62         smart = SmartPhone()
63         smart.prompt()
64         print()
65         smart.display()

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64
65  if __name__ == "__main__":
66      main()
67
```