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1  """
2  CS241 Team Activity 4 - Stretch
3  Written by Chad Macbeth
4  """
5
6  class Date:
7      """ Initialize the Date object
8      def __init__(self):
9          self.day = 1
10         self.month = 1
11         self.year = 2000
12
13     """ Prompt the user for the date
14     """ If an invalid date is entered, the user will be reprompted
15     def prompt(self):
16         valid_date = False
17         # Keep prompting until valid_date becomes true
18         while not valid_date:
19             self.day = int(input("Day: "))
20             self.month = int(input("Month: "))
21             self.year = int(input("Year: "))
22             # Check the date and update the valid_date variable
23             # Display an error message if needed
24             valid_date = self.check_date()
25             if not valid_date:
26                 print("Invalid entry.")
27                 print()
28
29     """ Display the date
30     def display(self):
31         # :02d == format this a decimal with 2 digits, padding with 0
32         print("{:02d}/{:02d}/{:02d}".format(self.month, self.day, self.year))
33
34     """ Check for a valid date
35     def check_date(self):
36         if (self.month < 1 or self.month > 12):
37             return False
38         if (self.year < 2000):
39             return False
40         return True
41
42     """ Display the date in long format
43     def display_long(self):
44         # Determine the month name
45         if (self.month == 1):
46             month_name = "January"
47         elif (self.month == 2):
48             month_name = "February"
49         elif (self.month == 3):
50             month_name = "March"
51         elif (self.month == 4):
52             month_name = "April"
53         elif (self.month == 5):
54             month_name = "May"
55         elif (self.month == 6):
56             month_name = "June"
57         elif (self.month == 7):
58             month_name = "July"
59         elif (self.month == 8):
60             month_name = "August"
61         elif (self.month == 9):
62             month_name = "September"
63         elif (self.month == 10):
64             month_name = "October"
65         elif (self.month == 11):
66             month_name = "November"

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67         elif (self.month == 12):
68             month_name = "December"
69         else:
70             month_name = ""
71
72         print("{} {:02d}, {}".format(month_name, self.day, self.year))
73
74     class Assignment:
75         """ Initialize the Date object """
76         def __init__(self):
77             self.name = "Untitled"
78             self.start_date = Date()
79             self.due_date = Date()
80             self.end_date = Date()
81
82         """ Prompt for the assignment from the user """
83         def prompt(self):
84             self.name = input("Name: ")
85             print()
86             print("Start Date:")
87             self.start_date.prompt()
88             print()
89             print("Due Date:")
90             self.due_date.prompt()
91             print()
92             print("End Date:")
93             self.end_date.prompt()
94
95         """ Display the assignment """
96         def display(self):
97             print("Assignment: {}".format(self.name))
98             print("Start Date:")
99             self.start_date.display()
100            self.start_date.display_long()
101            print("Due Date:")
102            self.due_date.display()
103            self.due_date.display_long()
104            print("End Date:")
105            self.end_date.display()
106            self.end_date.display_long()
107
108     # Test Driver for Assignment Class
109     def main():
110         assignment = Assignment()
111         assignment.prompt()
112         print()
113         assignment.display()
114
115     if __name__ == "__main__":
116         main()
117
118
119
120

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