# Python Programming Exercise

## Introduction

Thank you for doing our programming exercise. The task at hand is to fix bug or bugs in the attached application.

## Tasks

The attached code runs and returns an result of X, but that is not right. There may be multiple other bugs in the code. Can you fix it?

**Answer:**

**from datetime import datetime**

**'''**

**This task is to fix this code to write out a simple monthly report. The report should look professional.**

**The aim of the exercise is to:**

**- Ensure that the code works as specified including date formats**

**- Make sure the code will work correctly for any month**

**- Make sure the code is efficient**

**- Ensure adherence to PEP-8 and good coding standards for readability**

**- No need to add comments unless you wish to**

**- No need to add features to improve the output, but it should be sensible given the constraints of the exercise.**

**Code should display a dummy sales report**

**'''**

**### Do not change anything in the section below, it is just setting up some sample data**

**# test\_data is a dictionary keyed on day number containing the date and sales figures for that day**

**month = "02"**

**test\_data = {f"{x}": {"date": datetime.strptime(f"2021{month}{x:02d}", "%Y%m%d"),**

**'sales': float(x \*\* 2 / 7)} for x in range(1, 29)}**

**### Do not change anything in the section above, it is just setting up some sample data**

**start=test\_data['1']**

**end=test\_data['27']**

**def DateToDisplayDate(date):**

**# E.g. Monday 8th February, 2021**

**return (f"""{date.strftime("%a")} {date.strftime("%d")}th {date.strftime("%B")}, {date.strftime("%Y")}""")**

**start['date']=DateToDisplayDate(start['date'])**

**end['date']=DateToDisplayDate(end['date'])**

**print("Sales Report\nReport start date:" + start["date"] + "starting value:" + str(start["sales"]) + "\\nReport end date:" + end["date"] + "total sales:" + str(end["sales"]) + "\n")**

**total=0**

**for k, v in test\_data.items():**

**print("Date                                Sales    Month to Date  ")**

**if month == "2" and k == "29":**

**print("Leap year") # Must be displayed if data is for a leap year**

**print(f"{v['date']} {v['sales']} ${total}")**

**total=v['sales']+total**

**print(f"Total sales for the month{total}")**