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Software Development 1
Pablo Rivas Project 2: Semester Project

On the Day That You Were Born- Writeup

Abstract

This paper details the work t my final project for Software Development 1. The program I have designed aims to take a personal look at information based on your day of birth. The coding that I have used including the use of classes, methods, if- statements, try- catch statements, and switches has all been learned in class and are highlighted throughout the length of the code. In this paper, I have outlined the reason I decided to do this project, the steps taken to create the program, the uses for the program, and the work that I have completed to finish this project. As the program is in its entirety, I am optimistic that this writeup will be a useful and comprehensive description of the project.

Introduction

The pseudo personalization that surrounds birthdays, zodiacs, and horoscopes can often have a very personalized feel to them. Even though it is just another day, finding out things about your "special day" can make you very happy. For project 2, I have sought out to capitalize on this feeling and design what will feel like a completely unique and personalized interaction completely based on the day that you were born. A user simply chooses to run the program, reads the prompts, enters their name and birthday and a passage of formulated with unique information is printed back to the user. As you read through this report, you will see how I have decided to separate my methods, the interactions my classes have with each other, how the

program runs, programs that work similarly to mine, and a brief overview of the research that has led to the finished version of the project.

Detailed System Description

In creating this program, I searched for the best and most interesting ways to manipulate user data into an output, I have fully decided on five specific methods that create some pretty exciting feedback including the 7 data points that personalize the final message to the user. These methods have been worked into classes, that I call from the main method of Driver_prj2. For the classes that this program calls on I have broken down the operations into two parts: calculated data, and compared data. The calculated data is the methods that require further math or numeric information to create a result. The compared data is the methods that compare values to create a result. These classes were named Birthday() and Zodiac() respectively and they are the working code that makes my Driver_prj2 run. While the first data point created is just the users name in the main function, below are detailed descriptions for the uses of the individual methods listed by class.

Calculated Data

Inside of Birthday.java is where I have the three methods that use math to calculate an output.

- dateOfBirth: changes the int value taken in for the birthday month and writes the string of that month and, and returns a string for the user's birthday.
    - Ex. month = 4, day = 1, year = 1998
        - exampleBirthday.writtenMonth = April
        - exampleBirthday.fullDateOfBirth = April 4, 1998

- dayOfTheWeek: Takes the year, day, and month a user was born and determines what day of the week a user was born.
    - Ex. year = 1998, day = 1, month = 4
        - exampleBirthday.dayOfTheWeek = Wednesday
- whensBirthday: compares your birthday to the current date to create a Boolean value that shows if your birthday has passed or not. This value is then compared to the current date to show when your next birthday is. In the form of a sentence.
    - Ex. year = 1998, month = 4, day = 1
        - exampleBirthday.daysTill = "You always have a birthday coming. You've got (NUMBER OF DAYS) days till your next special day!"

Compared Data

Inside of Zodiac.java is where I have the two methods that compare the user's information to known values to create an output.

- western: Runs the user's birthday through an if statement to decide what the user's western zodiac is and prints a short statement about people born under that specific sign.
    - Ex. month = 4, day = 1
        - exampleBirthday.wZodiac = "Your Western zodiac sign is Aries. The sign of creative, and adaptable strong willed individuals."
- chinese: Runs the birth year through a switch to decide the Chinese zodiac that the user has and prints a sentence about people born in this sign year.
    - Ex. year = 1998
        - exampleBirthday.cZodiac = "Your Chinese zodiac is a tiger. You are enthusiastic, confident, and a natural leader."

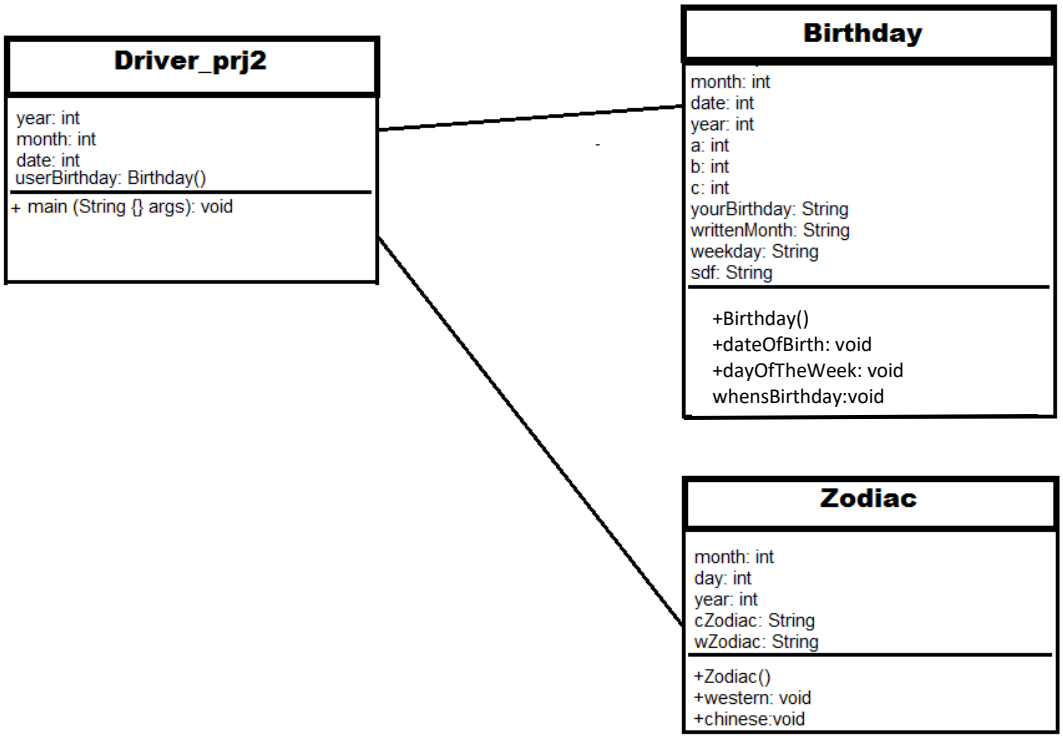

Figure 1.1 UML Diagram updated to include new names.

In the main method of Driver_prj2 I expand the print statements to display this information in a coherent and flowing manner. They are no longer disconnected statements they fit into paragraphs that describe the user with the personalized blurb that I envisioned for the project.

Literature survey

While I did find multiple, different systems that did the work of my program, I never found one that gave all of the information. My continued research did find some programs that were able to pull out as much information as my program. However, I also did not find a program that interacted with the user in the way that my program does. It was all cut and dry and neglected to make the information fun. The focus of this project is to bring that personalized aspect into all of the code and that is where I believe my work has differed from other programs like it.

```
C:\Users\cvict\cmpt220cameron\prj\2>java Driver_prj2
-----------------------------------------------------
|---------------------------------------------------|
|-----------ON THE DAY THAT YOU WERE BORN------------|
|-----------------Victoria Cameron-------------------|
|---------------------------------------------------|
-----------------------------------------------------
Press enter to continue:

Welcome to On the Day that You Were Born! Based on a little personal infoabout
you I'm gonna tell you more things about yourself that you may or may not have
known. The first thing that I need to know is your name.
Your name:User
Great User, next tell me your birth year, month, and day in the order they ask.

What year were you born:  1998
Can you tell me the month you were born; as a number: 4
Finally, what's your day of birth: 1
```

Image 1.1 initialization and start of program

User Manual

The operation of this program has continued to be simple. Once I added in the interactive text that made up the main part of the user interface I could keep the instructions imbedded into the text the user would read. I typed a lot of what I wanted to say into a separate word file making it easy to fully flesh out the technical aspects of the code in addition to the interactive part of the code. In its entirety, running the program and receiving feedback is as simple as inputting your name, year of birth, the month you were born as a number, and the day that you were born. This information prints the final message informing users of their unique history. The printed information is two paragraphs about 5 sentences each. The code can expand if more data points are added but for now, it functions as a great way to learn about yourself.

```
Well User, you were born on April 1, 1998. A very special day in the month of April giving you
pretty cool western and chinese zodiacs. Your Western zodiac sign is Aries.The sign of creative
, and adaptable strong willed individuals. Which is probably why it's so easy for people to be
around you.Your Chinese zodiac is a tiger.You are enthusiastic, confident, and a natural leader
. All of this paired together makes for a one of a kind person.
April 1, 1998 is also special because it falls on a Wednesday. A surprisingly unpopular day to
be born. You always have a birthday comming. You've got -38 days till your next special day! Bu
t no matter how near or far it is till your next one, birthdays are always special and unique w
hen you have the right people to share them with.

C:\Users\cvict\cmpt220cameron\prj\2>
```

Image 1.2 Result of a program test run

Conclusion

My main goal was for the code to be able to take in information and distribute it into classes. I wanted to separate out the given information and return real and accurate data to the user. Now I can gather information from a user and return to them data that has been calculated or compared to tell the user something new. A lot of hard work went into this project and I am so

happy with its completion. After I added in the readable text that makes the program interactive I saw that having a strong foundation and base in your code makes the implementation so much easier. When writing the milestone, I had a few goals in mind for what the completion of the project would look like and I am so happy that now it is done and those goals have been met. I see further uses and applications for this project in the future and I hope that as I move on in my work I will call on all of the skills gathered in this class.

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