Part E: Evaluation

Meeting the Success Criteria

Success Criteria	Met	Evidence

The program can read the first and last day of the schedule and calculate the total days.	Yes	`First day in mm/dd/yyyy format: 08/28/2023`
		`Last day in mm/dd/yyyy format: 06/16/2024`
		
		```java\npublic static LocalDate scanDay(String dayName, Scanner kb,\n DateTimeFormatter formatter) {\n System.out.print(dayName + " day in mm/dd/yyyy format: ");\n return LocalDate.parse(kb.nextLine(), formatter);\n} //Prompts the user for a specific day and returns the scanned string\n as a LocalDate\n\npublic int calcTotalDays(LocalDate firstDay, LocalDate lastDay) {\n return (int)ChronoUnit.DAYS.between(firstDay, lastDay) + 1;\n} //Calculates the number of days between two dates inclusive\n```

The user can input a file of days of weekdays where they do not need the carpool.	Yes	```java\npublic static ArrayList<LocalDate> createDateList(File data, Scanner sc,\n DateTimeFormatter formatter) throws FileNotFoundException {\n ArrayList<LocalDate> days = new ArrayList<LocalDate>();\n while(sc.hasNextLine()) {\n LocalDate day = LocalDate.parse(sc.nextLine(), formatter);\n days.add(day);\n }\n return days;\n} //creates an ArrayList of LocalDates from a text file of Strings\n```

These days are not included when filling in the schedule.	Yes	`Week: 17    Ms. M        Mr. T        Mr. G        NO CARPOOL   NO CARPOOL`
		`Week: 18    NO CARPOOL   NO CARPOOL   NO CARPOOL   NO CARPOOL   NO CARPOOL`
		`Week: 19    NO CARPOOL   NO CARPOOL   Ms. M        Mr. L        Mr. G`

The user can input their driver's name and preferred days.	Yes	`Driver 1 name: Mr. T`
		`Days Mr. T prefers to drive: Tuesday Thursday`
		
		`Driver 2 name: Mr. G`
		`Days Mr. G prefers to drive: Monday Wednesday Friday`
		
		`Driver 3 name: Mr. L`
		`Days Mr. L prefers to drive: Monday Thursday`
		
		`Driver 4 name: Ms. M`
		`Days Ms. M prefers to drive: Monday Wednesday Friday`

The user can input as many drivers as they need to.	Yes	`Number of drivers in your carpool: 4`

| Each driver has a counter that tracks the number of turns that they have been assigned. | Yes | ```
Mr. T: 45
Mr. G: 44
Mr. L: 44
Ms. M: 44
``` |
A schedule is set up from the week of the first day to the week of the last day. Yes	Yes	(see schedule below)
The schedule can be filled and every day that is not a weekend or is not included in the file of days off is assigned a driver.	Yes	
The full schedule is printed out in a readable format. This means that there is a new line between every week and there is sufficient distance between the days.	Yes	

```
Week: 1    Mr. G         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 2    NO CARPOOL    Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 3    Mr. L         Mr. T         Ms. M         Mr. T         Mr. G         WEEKEND   WEEKEND
Week: 4    Mr. L         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 5    NO CARPOOL    Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 6    Ms. M         Mr. T         Mr. G         Mr. L         Ms. M         WEEKEND   WEEKEND
Week: 7    NO CARPOOL    Mr. T         Mr. G         Mr. L         Ms. M         WEEKEND   WEEKEND
Week: 8    Mr. G         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 9    Mr. L         Mr. T         Ms. M         Mr. T         Mr. G         WEEKEND   WEEKEND
Week: 10   Mr. L         Mr. T         NO CARPOOL    Mr. L         Ms. M         WEEKEND   WEEKEND
Week: 11   Mr. G         NO CARPOOL    Ms. M         Mr. T         NO CARPOOL    WEEKEND   WEEKEND
Week: 12   Mr. G         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 13   Mr. L         Mr. T         NO CARPOOL    NO CARPOOL    NO CARPOOL    WEEKEND   WEEKEND
Week: 14   Ms. M         Mr. T         Mr. G         Mr. L         Ms. M         WEEKEND   WEEKEND
Week: 15   Mr. G         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 16   Mr. L         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 17   Ms. M         Mr. T         Mr. G         NO CARPOOL    NO CARPOOL    WEEKEND   WEEKEND
Week: 18   NO CARPOOL    NO CARPOOL    NO CARPOOL    NO CARPOOL    NO CARPOOL    WEEKEND   WEEKEND
Week: 19   NO CARPOOL    NO CARPOOL    Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 20   Mr. L         Mr. T         Ms. M         Mr. T         Mr. G         WEEKEND   WEEKEND
Week: 21   NO CARPOOL    Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 22   Mr. L         Mr. T         NO CARPOOL    Mr. L         Ms. M         WEEKEND   WEEKEND
Week: 23   Mr. G         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 24   Ms. M         Mr. T         Mr. G         Mr. L         Ms. M         WEEKEND   WEEKEND
Week: 25   Mr. G         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 26   NO CARPOOL    NO CARPOOL    Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 27   Mr. L         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 28   Mr. L         Mr. T         Ms. M         Mr. T         Mr. G         WEEKEND   WEEKEND
Week: 29   NO CARPOOL    Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 30   Mr. L         Mr. T         NO CARPOOL    Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 31   NO CARPOOL    NO CARPOOL    NO CARPOOL    NO CARPOOL    NO CARPOOL    WEEKEND   WEEKEND
Week: 32   Ms. M         Mr. T         Mr. G         Mr. L         Ms. M         WEEKEND   WEEKEND
Week: 33   Mr. G         Mr. T         NO CARPOOL    Mr. L         Ms. M         WEEKEND   WEEKEND
Week: 34   Mr. G         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 35   Mr. L         Mr. T         Ms. M         Mr. T         Mr. G         WEEKEND   WEEKEND
Week: 36   NO CARPOOL    Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 37   Mr. L         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 38   Ms. M         Mr. T         Mr. G         Mr. L         Ms. M         WEEKEND   WEEKEND
Week: 39   Mr. G         Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 40   NO CARPOOL    Mr. T         Ms. M         Mr. L         Mr. G         WEEKEND   WEEKEND
Week: 41   Mr. L         Mr. T         Ms. M         Mr. T         Mr. G         WEEKEND   WEEKEND
Week: 42   Mr. L         Mr. T         Ms. M         NO CARPOOL    NO CARPOOL    WEEKEND   WEEKEND
Week: 43   null          null          null          null          null          null      null
```

Recommendations for Improvement

- Minor developments
    - Carpools can be scheduled for more than once a day: Many carpools that drop kids off at school also pick them up in the afternoon so this would allow morning and afterschool carpools to be scheduled at the same time.

- ○ The user can choose which day of the week to carpool: This would allow people who need to carpool somewhere regularly on weekends or have other weekly schedules to use the program.
- ● Major developments
  - ○ Allow date ranges to be inputted into the daysOff text file: Year-round schools, for example, have large ranges of dates where the carpool does not need to run throughout the year. This would make inputting into the text file take less time.
  - ○ Switch turns between drivers: There are many times within a year where a carpool driver can't drive their turn, so this would allow those events to be smoothly dealt with.
  - ○ Make a day a day off later: If a carpool needs to be canceled for a specific day (such as a snow day), the turn is taken off the driver's list and no one has to drive that day.

Appendix E

Fourth client interview

Developer: Hi Ms. M! Here is the final product for the Carpool Scheduler. Does it meet all of the success criteria?

Client: Yes, it does!

Developer: Is there anything that you think would be good to add in future versions?

Client: Hmm. I've been wanting to start a carpool in the afternoon. So a way to add a schedule for both morning drop offs and afternoon pickups would be nice to see in the future.

Developer: That sounds like it would be possible in the future. I hope the Carpool Scheduler will be helpful to you and thanks for working with me for the past couple of weeks!

Client: Thanks for creating the scheduler! It will definitely be used.