QAP1

Advance Programing (Java)

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1. Account Class & TestAccount

1.1. Account.java

- **attributes**: id, name, balance.
- **Behaviours**: credit(), debit(), transferTo(), etc.
- **Constructor** When creating a new Account object, it Initializes the id, name, and balance based on the values provided.

1.2. TestAccount.java

- Creating two accounts (Acc1,Acc2).
- Printing initial balances.
- Transferring $1000 from Acc1 to Acc2

1.3. Output Screenshot

```
============ TESTING ACCOUNT CLASS ============

--- INITIAL ACCOUNTS ---
Acc1: Account[id=A001, name=Walid Jer, balance=5000]
Acc2: Account[id=A002, name=Matt Dan, balance=4000]

--- BALANCES BEFORE TRANSFER ---
Balance of Walid Jer (A001) = $5000
Balance of Matt Dan (A002) = $4000

Transferring $1000 from A001 to A002...

--- BALANCES AFTER TRANSFER ---
Balance of Walid Jer (A001) = $4000
Balance of Matt Dan (A002) = $5000

================== END OF TEST ==================
```

2. Date Class & TestDate

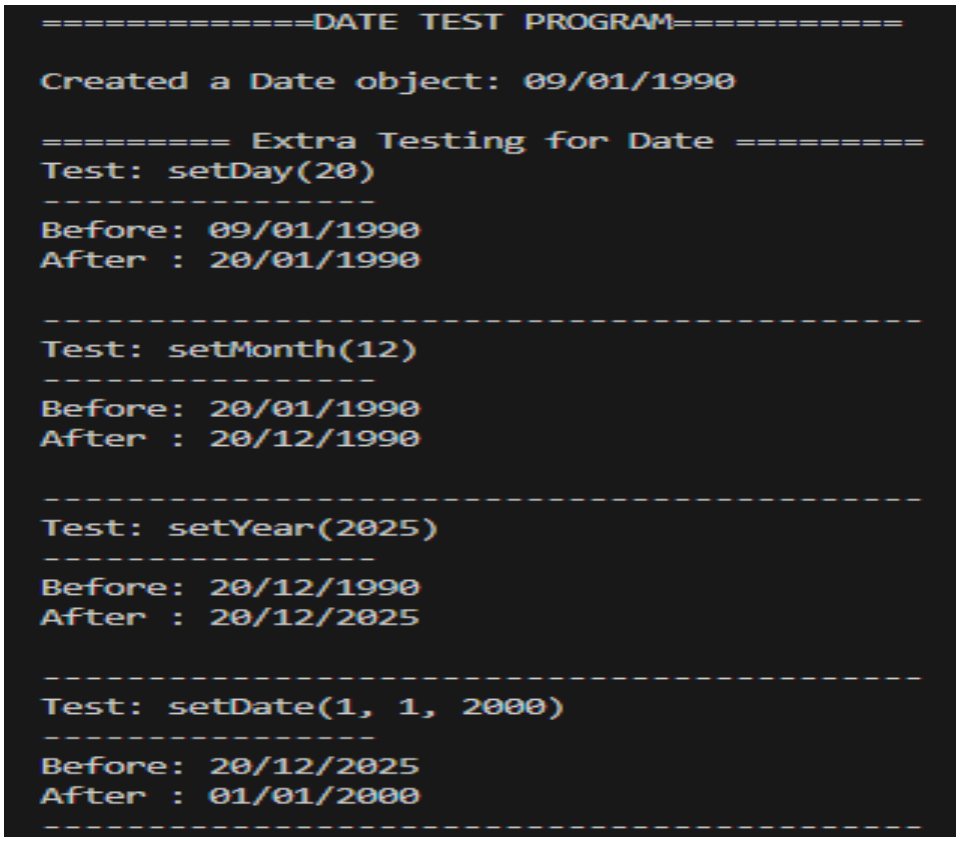
2.1. Date.java

- **Attributes:** day, month, year.
- **Behaviors:** setDay(), setMonth(), getMonth(), getYear(),toString(), ect.
- **Constructor Behavior:** When creating a new Date object, the constructor sets the day, month, and year based on the values provided

2.2. TestDate.java

- Creating a Date object (e.g., Date D1 = new Date(9, 1, 1990);).
- Printing the date.
- Optional Additional Tests:
    - Show changing the day/month/year via setDay(), setMonth(), setYear(), or setDate() and print the updated outputs.

2.3. Output Screenshot



3. Time Class & TestTime

3.1. Time.java

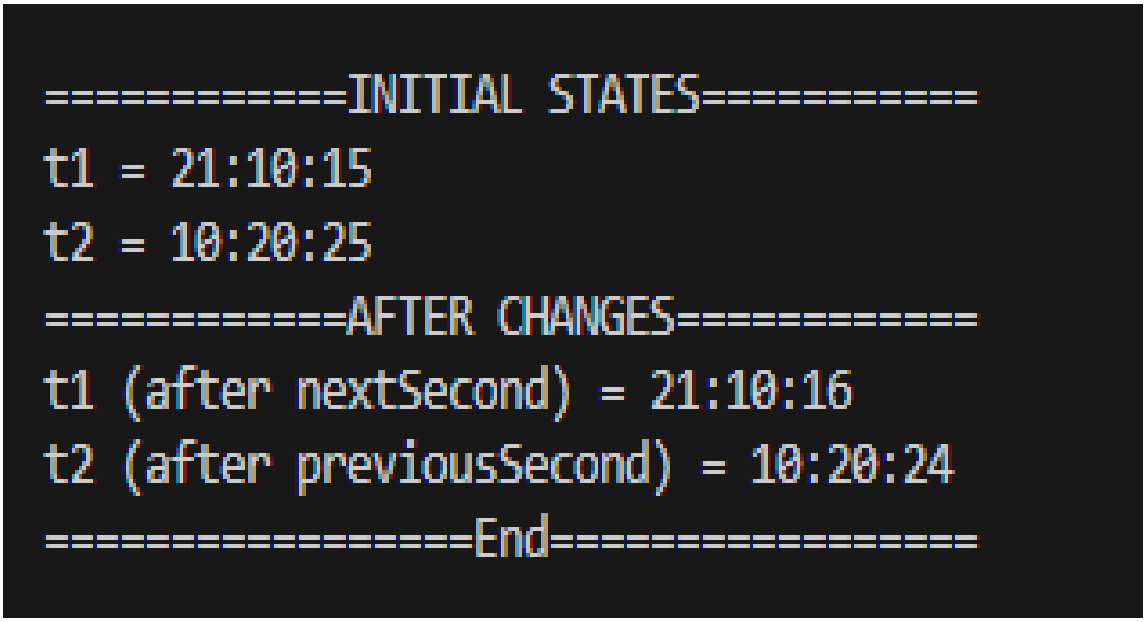
- **Attributes:** hour, minute, second.
- **Behaviors:** setHour(),setSecond(), setTime(),getMinute(), nextSecond(), toString(), previousSecond()
- **Constructor Behavior:**

  When creating a new Time object, the constructor sets the hour, minute, and second based on given values (e.g., Time(21, 10, 15)).

3.2. TestTime.java

- Creating Time objects (e.g., Time t1 = new Time(21, 10, 15);).
- Printing the time before and after calling nextSecond() or previousSecond().

3.3. Output Screenshot



4. Feedback Questions:

You are allowed to complete the assessment problems below in whatever way you can but please answer the following questions/points as part of your submission:

1. How many hours did it take you to complete this assessment? (Please keep try to keep track of how many hours you have spent working on each individual part of this assessment as best you can - an estimation is fine; we just want a rough idea.)

   I would say 5 hours since I watch the Records regularly so I don't need extra hours to watch them while Solving these problems

2. What online resources you have used? (My lectures, YouTube, Stack overflow etc.)

   Only Lectures, Stack overflow, and some youtube channels

3. Did you need to ask any of your friends in solving the problems. (If yes, please mention name of the friend. They must be amongst your class fellows.)

   No

4. Did you need to ask questions to any of your instructors? If so, how many questions did you ask (or how many help sessions did you require)?

   No

5. Rate (subjectively) the difficulty of each question from your own perspective, and whether you feel confident that you can solve a similar but different problem requiring some of the same techniques in the future now that you've completed this one.

   I would rate these exercises at about 80% difficulty from my perspective. Now that I've completed them, I feel very confident in tackling similar problems in the future, as I've developed a solid understanding of the techniques involved.