Java Tasks

Student Information

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1. Program 3 – Date and Time:

- Write a program using LocalDate, LocalTime, and LocalDateTime to print the current date, time, and both together in a formatted way.

Coding:

```java
import java.time.LocalDate;
import java.time.LocalTime;
import java.time.LocalDateTime;
import java.time.format.DateTimeFormatter;

public class JavaTasks {

    public static void main(String[] args) {

        LocalDate Date = LocalDate.now();
        LocalTime Time = LocalTime.now();
        LocalDateTime DateTime = LocalDateTime.now();

        DateTimeFormatter dateFormatter = DateTimeFormatter.ofPattern("dd-MM-yyyy");
        DateTimeFormatter timeFormatter = DateTimeFormatter.ofPattern("HH:mm:ss");
        DateTimeFormatter dateTimeFormatter = DateTimeFormatter.ofPattern("dd-MM-yyyy HH:mm:ss");

        System.out.println("Current Date: " + Date.format(dateFormatter));
        System.out.println("Current Time: " + Time.format(timeFormatter));
        System.out.println("Current Date and Time: " + DateTime.format(dateTimeFormatter));
    }
}
```

Output:

```
PROBLEMS 1    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    SPELL CHECKER    QUERY RESULTS

PS C:\Users\MOHAMED REDA> cd "d:\coding\.vscode\" ; if ($?) { javac JavaTasks.java } ; if ($?) { java JavaTasks }
Current Date: 30-10-2025
Current Time: 17:01:51
Current Date and Time: 30-10-2025 17:01:51
PS D:\coding\.vscode>
```
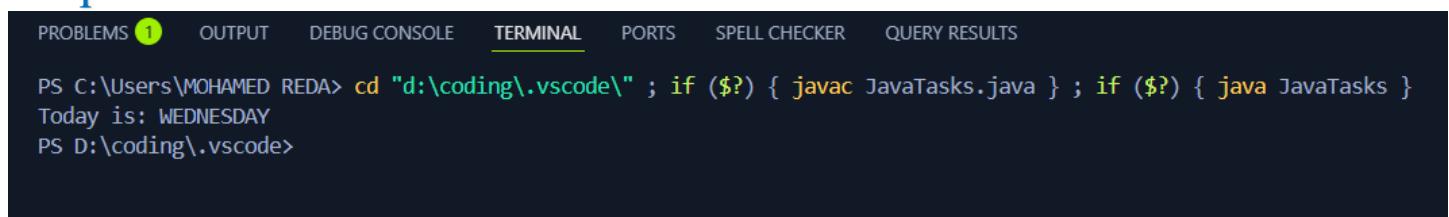
Java Tasks

2. Program 4 – Enum Example:

- Define an enum called Day with days of the week and use a switch statement to display a message for each day.

Coding:

```java
public class JavaTasks {
    enum Day {
        MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY
    }
    public static void main(String[] args) {
        Day today = Day.WEDNESDAY;
        switch(today) {
            case MONDAY:
                System.out.println("Today is: MONDAY");
                break;
            case TUESDAY:
                System.out.println("Today is: TUESDAY");
                break;
            case WEDNESDAY:
                System.out.println("Today is: WEDNESDAY");
                break;
            case THURSDAY:
                System.out.println("Today is: THURSDAY");
                break;
            case FRIDAY:
                System.out.println("Today is: FRIDAY");
                break;
            case SATURDAY:
                System.out.println("Today is: SATURDAY");
                break;
            case SUNDAY:
                System.out.println("Today is: SUNDAY");
                break;
            default:
                System.out.println("Unknown day.");
        }

    }
}
```

Output:

PROBLEMS ①   OUTPUT   DEBUG CONSOLE   **TERMINAL**   PORTS   SPELL CHECKER   QUERY RESULTS

```
PS C:\Users\MOHAMED REDA> cd "d:\coding\.vscode\" ; if ($?) { javac JavaTasks.java } ; if ($?) { java JavaTasks }
Today is: WEDNESDAY
PS D:\coding\.vscode>
```

Java Tasks

3. Program 5 – ArrayList and List Interface:

- Create a List<String> of student names using ArrayList, add several names, remove one, and display all names using a for-each loop.

Coding:

```java
import java.util.ArrayList;
import java.util.List;
public class JavaTasks {
    public static void main(String[] args) {

        List<String> Students = new ArrayList<>();
        Students.add("Abdo");
        Students.add("Mohamed");
        Students.add("Ali");
        Students.add("Omar");

        System.out.println("Original List: " + Students);

        Students.remove("Ali");
        System.out.println("After removing 'Ali': " + Students);

        for (String Name : Students) {
            System.out.println("Student Name: " + Name);
        }

    }
}
```

Output:

```
PROBLEMS 1    OUTPUT    DEBUG CONSOLE    TERMINAL    PORTS    SPELL CHECKER    QUERY RESULTS

PS C:\Users\MOHAMED REDA> cd "d:\coding\.vscode\" ; if ($?) { javac JavaTasks.java } ; if ($?) { java JavaTasks }
Original List: [Abdo, Mohamed, Ali, Omar]
After removing 'Ali': [Abdo, Mohamed, Omar]
Student Name: Abdo
Student Name: Mohamed
Student Name: Omar
PS D:\coding\.vscode>
```