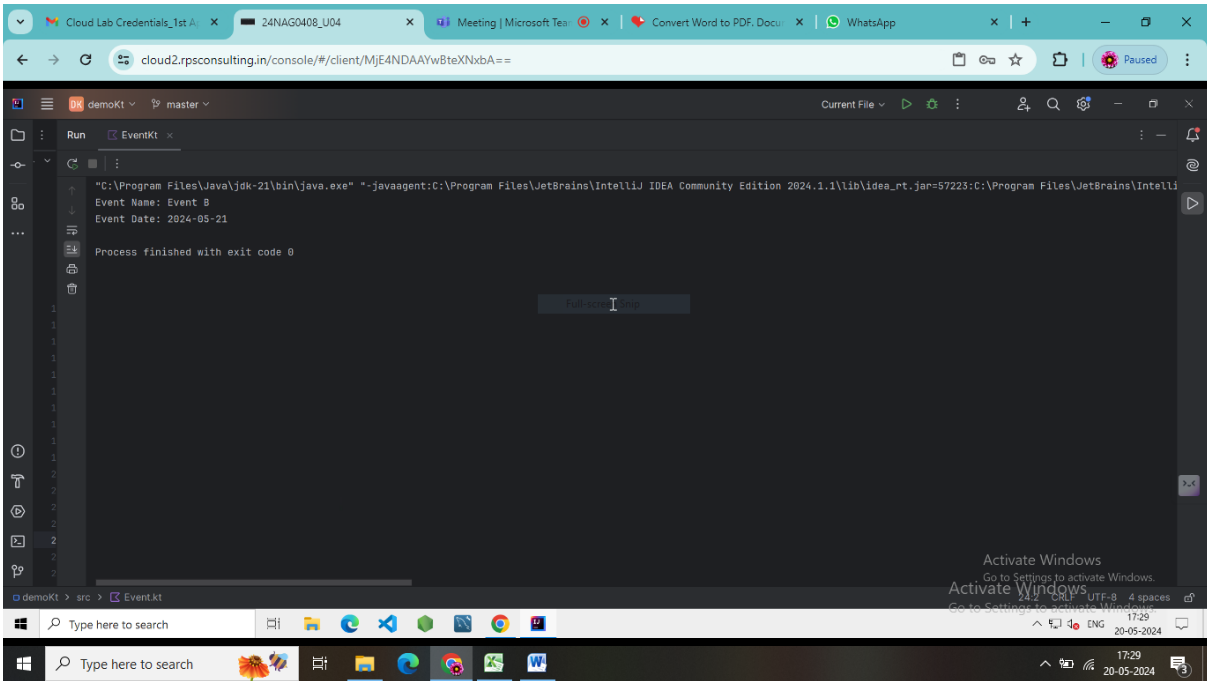
Day-4, Assignment-2

Task 1: Ensure that the system gracefully handles null references when retrieving event data.

```
data class Event(val name: String, val date: String)

fun getEventData(eventId: Int): Event? {

    // This function simulates retrieving event data from a database or some other data source

    // If the event doesn't exist, it returns null

    val eventDataMap = mapOf(

        1 to Event("Event A", "2024-05-20"),

        2 to Event("Event B", "2024-05-21"),

        3 to Event("Event C", "2024-05-22")

    )

    return eventDataMap[eventId]

}

fun main() {

    val eventId: Int? = 2 // Event ID to retrieve, could be null if not provided

    // Retrieving event data and handling null references gracefully

    val event: Event? = eventId?.let { getEventData(it) }

    // Using safe call operator (?.) to access properties of the event safely

    println("Event Name: ${event?.name}")

    println("Event Date: ${event?.date ?: "Date Not Available"}") // Elvis operator (?:) provides a default value if date is null

}
```

Output:

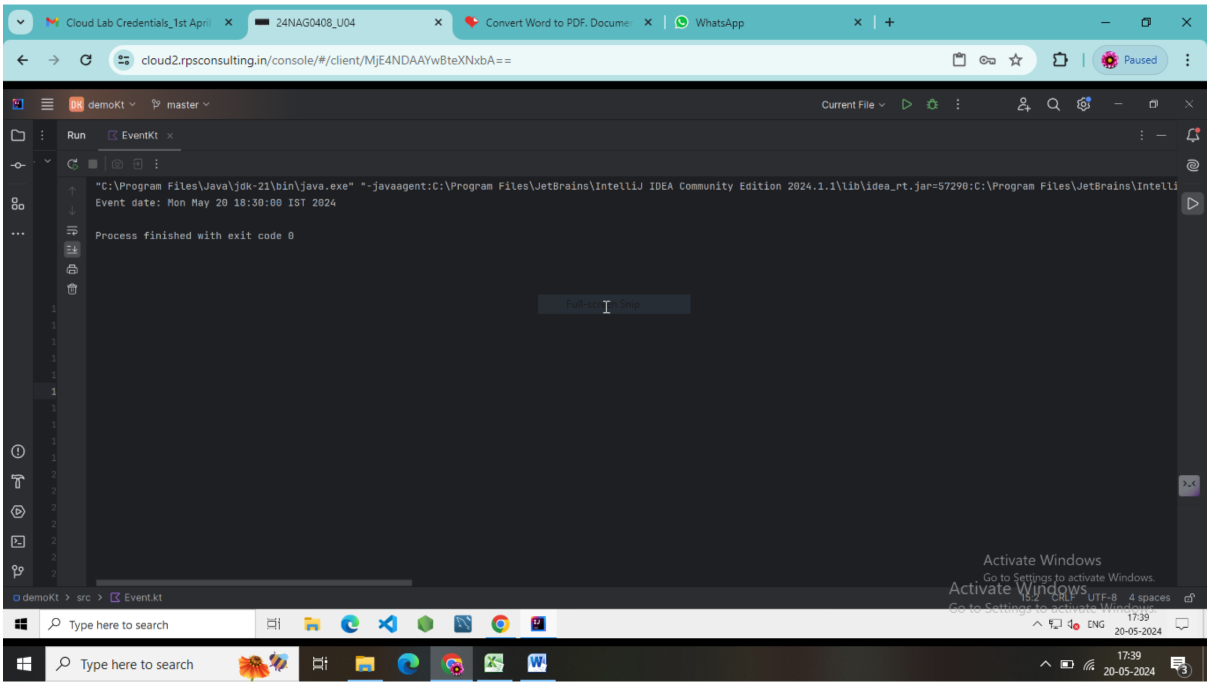


```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2024.1.1\lib\idea_rt.jar=57223:C:\Program Files\JetBrains\Intelli
Event Name: Event B
Event Date: 2024-05-21

Process finished with exit code 0
```

Task 2: Implement try-catch blocks to handle parsing errors when reading event dates and times.

```
import java.time.LocalDateTime

import java.time.format.DateTimeParseException

fun main() {

    val userInput = "2024-05-20T18:30:00" // Example user input

    try {

        val eventDateTime = parseEventDateTime(userInput)

        println("Event date and time: $eventDateTime")

    } catch (e: DateTimeParseException) {

        println("Error parsing date and time: ${e.message}")

        // Handle the error gracefully, such as asking the user to enter the date and time again.

    }

}

fun parseEventDateTime(dateTimeString: String): LocalDateTime {

    return LocalDateTime.parse(dateTimeString)

}
```

Output:



```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2024.1.1\lib\idea_rt.jar=57290:C:\Program Files\JetBrains\Intelli
Event date: Mon May 20 18:30:00 IST 2024

Process finished with exit code 0
```

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24NAG0408_U04
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cloud2.rpsconsulting.in/console/#/client/MjE4NDAAYwBteXNxbA==
Paused
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EventKt
demoKt > src > Event.kt
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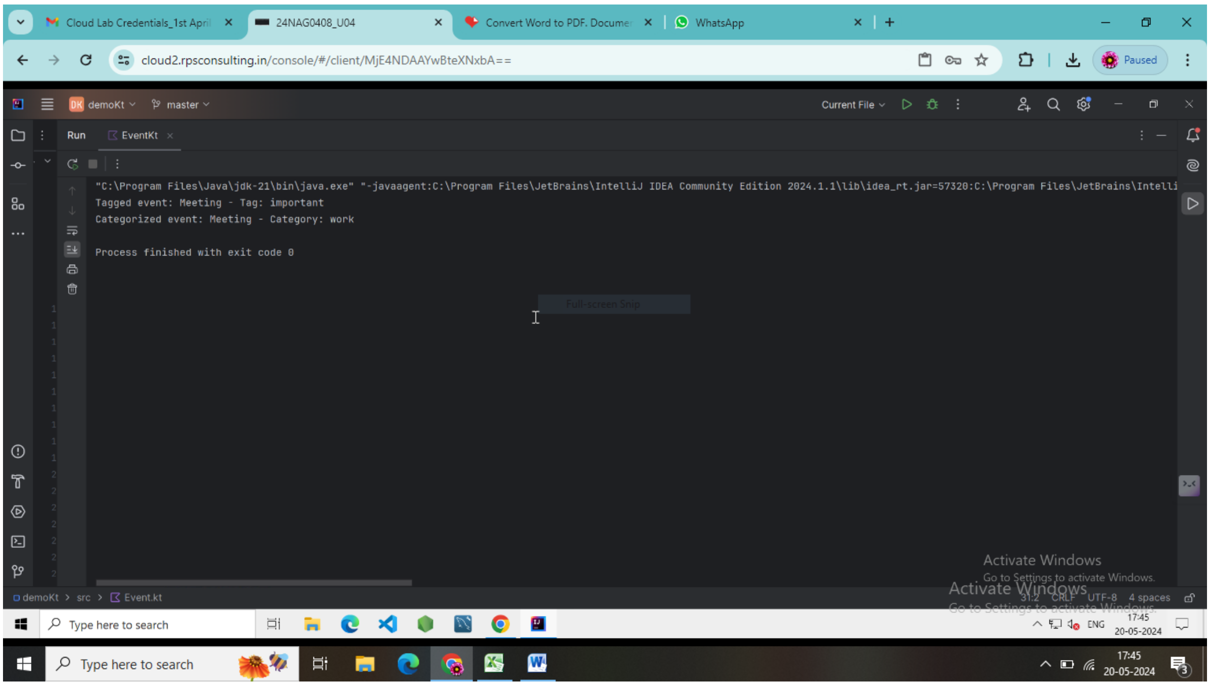
20-05-2024

Task 1: Write extension functions for the Event class to add features like tagging and categorization.

```
class Event(val name: String, val date: String)

// Extension function to add tagging feature

fun Event.tag(tag: String): EventWithTag {

    return EventWithTag(this, tag)

}

// Extension function to add categorization feature

fun Event.categorize(category: String): EventWithCategory {

    return EventWithCategory(this, category)

}

// Wrapper class for tagged events

data class EventWithTag(val event: Event, val tag: String)

// Wrapper class for categorized events

data class EventWithCategory(val event: Event, val category: String)

// Usage

fun main() {
    val event = Event("Meeting", "2024-05-20")

    // Tagging the event

    val taggedEvent = event.tag("important")

    // Categorizing the event

    val categorizedEvent = event.categorize("work")

    println("Tagged event: ${taggedEvent.event.name} - Tag: ${taggedEvent.tag}")

    println("Categorized event: ${categorizedEvent.event.name} - Category:
${categorizedEvent.category}")

}
```

Output:



```
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2024.1.1\lib\idea_rt.jar=57320:C:\Program Files\JetBrains\Intelli
Tagged event: Meeting - Tag: important
Categorized event: Meeting - Category: work

Process finished with exit code 0
```

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WhatsApp
cloud2.rpsconsulting.in/console/#/client/MjE4NDAAYwBteXNxbA==
Paused
demoKt
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Current File
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EventKt
demoKt > src > Event.kt
Activate Windows
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20-05-2024