CODTECH INTRENSHIP

TASK 2: AUTOMATED REPORT GENERATION

BY: HOJAIFA ANSARI

INTRODUCTION:

In this project, I have developed a Python script for Automated Report Generation. The main objective of this project is to read data from a file, analyze it, and generate a well-formatted PDF report.

For creating the PDF report, I have used the ReportLab library in Python, which helps in generating structured and professional-looking PDF documents automatically.

This project improves skills in file handling,
Data processing, and PDF generation using python.

CODE:

```python
from reportlab.lib.pagesizes import letter
from reportlab.pdfgen import canvas

# Function to generate PDF report
def generate_report(input_file, output_pdf):
    # Create a PDF canvas
    c = canvas.Canvas(output_pdf, pagesize=letter)
    width, height = letter

    # Title of the report
    c.setFont("Helvetica-Bold", 16)
    c.drawCentredString(width / 2, height - 50, "Automated Report")

    # Reading content from input file
    with open(input_file, "r") as file:
        lines = file.readlines()
```

```python
    # Writing content into the PDF
    c.setFont("Helvetica", 12)
    y_position = height - 100

    for line in lines:
        if y_position < 50:
            c.showPage()
            c.setFont("Helvetica", 12)
            y_position = height - 50

        c.drawString(50, y_position, line.strip())
        y_position -= 20

    # Save the PDF file
    c.save()
    print(f"Report '{output_pdf}' generated successfully!")

# Example usage
input_file = "report_data.txt"        # Text file with content for
report
output_pdf = "Generated_Report.pdf"  # Output PDF file name

generate_report(input_file, output_pdf)
```

OUTPUT:

Automated Report

Automated Report Generation using Python

This report is generated from a text file.
It demonstrates how to read a file and convert its content into a PDF format.

Python Libraries Used:
- reportlab
- os (optional for file handling)

Advantages:
- Saves time by automating manual report writing.
- Produces clean and professional-looking reports.

This concludes the example automated report.

CONCLUSION:

This project helped me understand how to automate the process of report generation using Python. By utilizing the ReportLab library, I was able to create a well-structured PDF report from a simple text file.

This project enhanced my skills in file handling, PDF generation, and automation techniques with Python, making report creation faster and more efficient.