Task-1:

Create a custom LaTex report from the Tex File generated using PyLatex. Users should specify components from the report to be printed.

Problem Statement:

- **Objective**: Develop a GUI using PyQt where different components of the Tex file are enlisted and the user can pick and select the components to print.
- **Tex File**:
  - Applicant can download the Tex File [Here]
- **Requirements**:
  - Applicant will have to create a small GUI where a list of components of the given Tex file is enlisted
  - The users can then select the components they want to print
  - The PDF generated should print only the selected components
- **Output**:
  - Custom report of selected components only

Task-2:

Develop a unit test using PyTest for the given bolted lap joint module code.

Problem Statement:

- **Objective**: Develop a unit test to assess whether the code provides a minimum design of two bolts in case of any load or thickness provided.
- **Python Files**:
  - Bolted Lap Joint Module: `bolted_lap_joint_design.py`: [Link]
- **Requirements**:
  - Applicants will have to use PyTest to develop this unit test
- **Output**:

    - The test should assess whether any load **P** ranging from [0 to 100] kN and thicknesses **t1** and **t2** [6,8,10,12,16,20,24] mm will give at least two number of bolts for the connection design

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Resources [Link]

1. **Overleaf Template**:
    - Copy the LaTeX document given in this Overleaf template: [Link]
    - Edit and compile your LaTeX document

Submission Requirements:

- **Link 1: Overleaf Project**
    - Provide the link to your Overleaf project. [Change sharing settings]
- **Link 2: GitHub Repository [Recommended]**
    - Provide the GitHub repository link and add `osdag-admin` as a collaborator.
- **Report**
    - Submit a PDF report created from Overleaf.
- **ZIP File**
    - Submit a ZIP file containing all relevant files and codes for the project.
- **Resume**
- **A short video** (screencast or recording) showcasing your Python/software program.
    - The video can be silent, with no voiceover required.
    - Upload the video to YouTube or any cloud platform and share the link in the form.

Additional Notes

- Ensure your submission includes all necessary components.
- If you have already submitted your task, you can modify, enhance, or improve it and resubmit through the form.