ELP718 Telecom Software Laboratory
1st Semester, 2016-18
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Assignment-10

Contents

0.1 Introduction

This assignment aims to provide a better understanding of the following topics:

1. **Python**
Python is a widely used high-level, general-purpose, interpreted, dynamic programming language.[24][25] Its design philosophy emphasizes code readability, and its syntax allows programmers to express concepts in fewer lines of code than possible in languages such as C++ or Java.[26][27] The language provides constructs intended to enable writing clear programs on both a small and large scale.[28] Python supports multiple programming paradigms, including object-oriented, imperative and functional programming or procedural styles. It features a dynamic type system and automatic memory management and has a large and comprehensive standard library.[29]
Python interpreters are available for many operating systems, allowing Python code to run on a wide variety of systems. Using third-party tools, such as Py2exe or Pyinstaller,[30] Python code can be packaged into stand-alone executable programs for some of the most popular operating systems, so Python-based software can be distributed to, and used on, those environments with no need to install a Python interpreter.
CPython, the reference implementation of Python, is free and open-source software and has a community-based development model, as do nearly all of its variant implementations. CPython is managed by the non-profit Python Software Foundation.

2. **Kivy**
Kivy - Open source Python library for rapid development of applications that make use of innovative user interfaces, such as multi-touch apps.

0.2 Problem Statement 1

This problem requires us to build a GUI containing a six screen system.
First screen being student/admin login option.
Second screen being user login system.
Third screen being Student Info Form.
Fourth Screen being Student info display form. Fifth Screen being Widget system that enables admin to choose between displaying student info and graph of their marks. Sixth screen being graph displayed of Subject vs marks.

0.2.1 Assumptions

The directory student info isn't formed beforehand and files are also created then only.

0.2.2 Structure Chart and Implementation

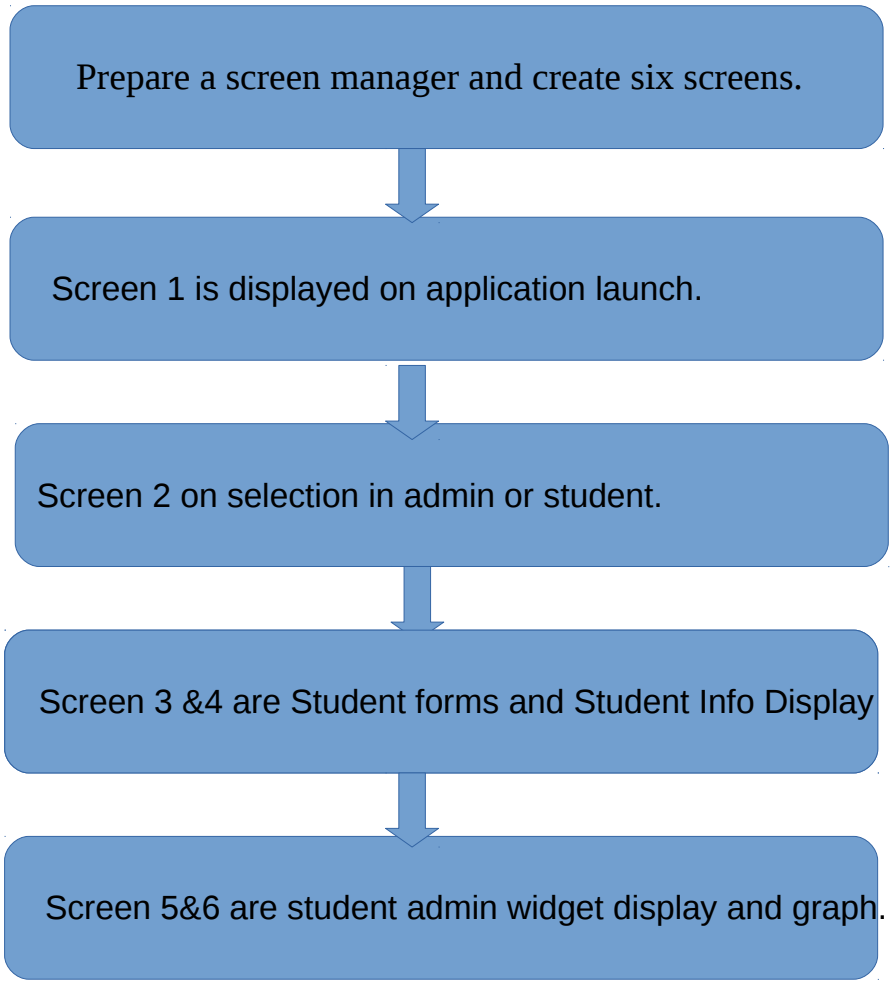

Figure 1: Structure chart for problem 1

0.2.3 Screenshots

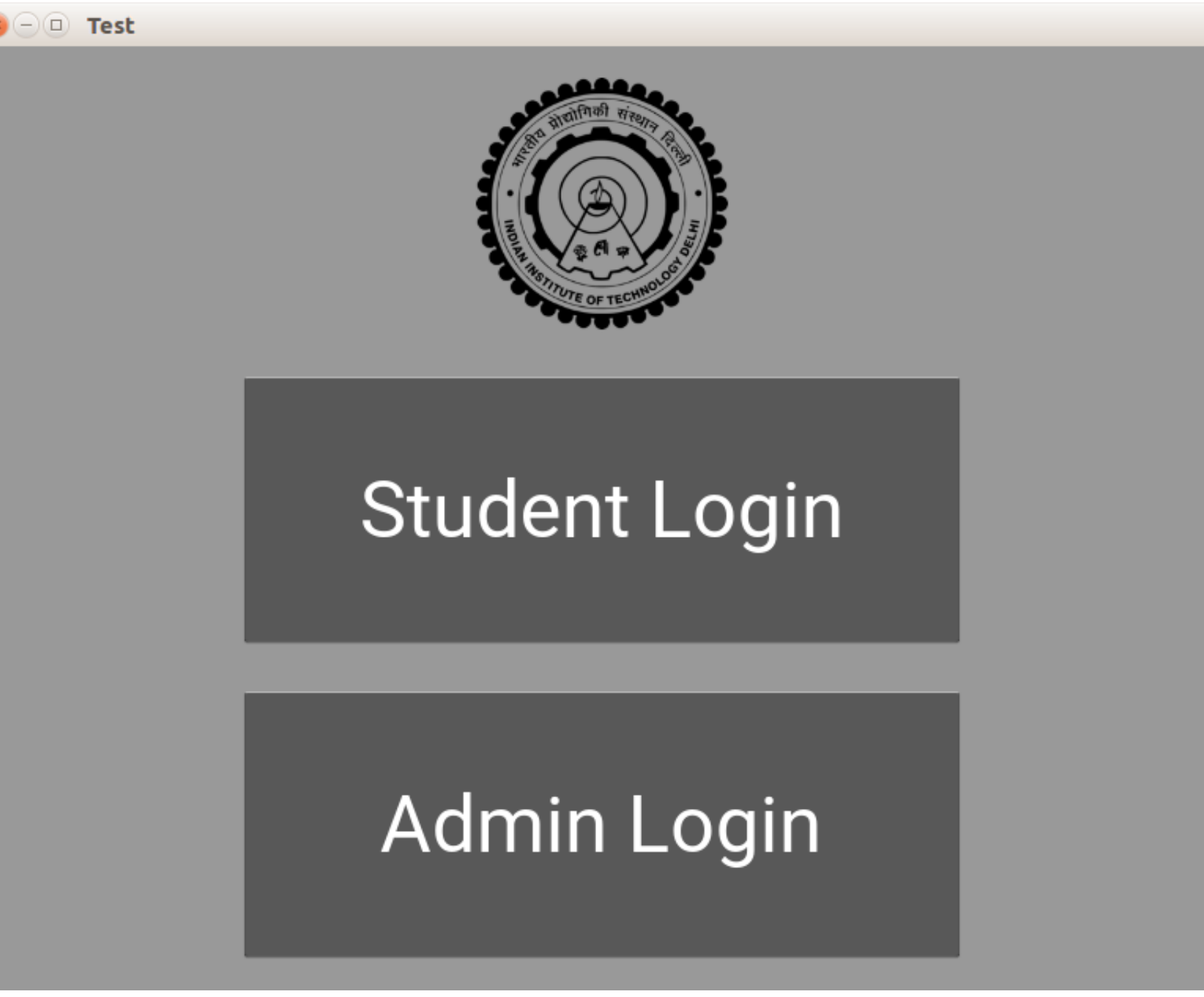

Figure 2: Screenshot for problem statement 1

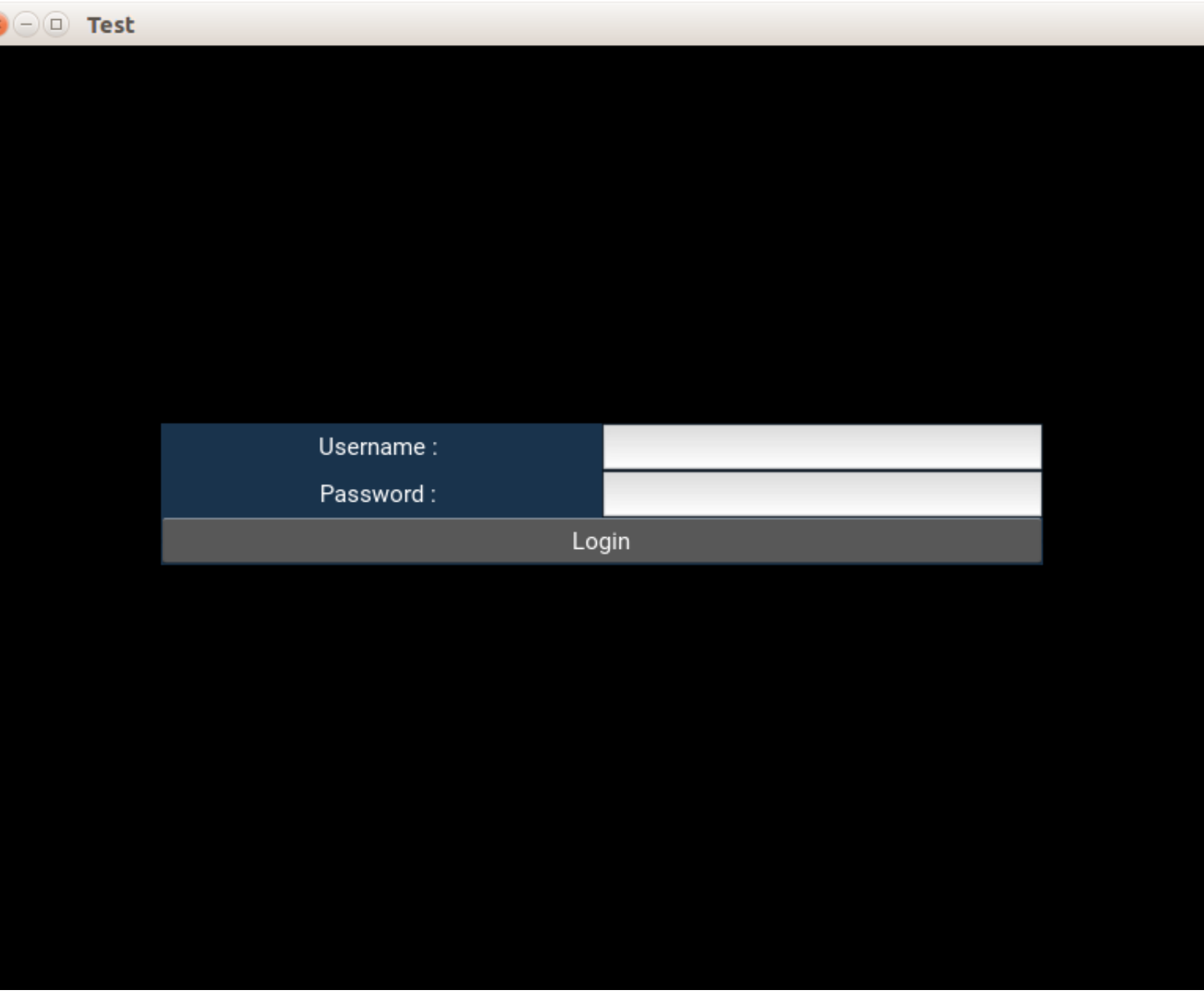

Figure 3: Screenshot for problem statement 1

0.3 Epilogue

The execution of the first problem involved me to break it down and then try to figure out solution to each and every part of it. To some extent I feel I have been successful in justifying the problem.
Whereas for problem statement 2, it was a different but not so difficult problem statement compared to problem 1.
Then i found the problem 3 to be the toughest of all problems.
This week's assignment too has taught me a lot of things on which I shall further improve upon in the next assignment.

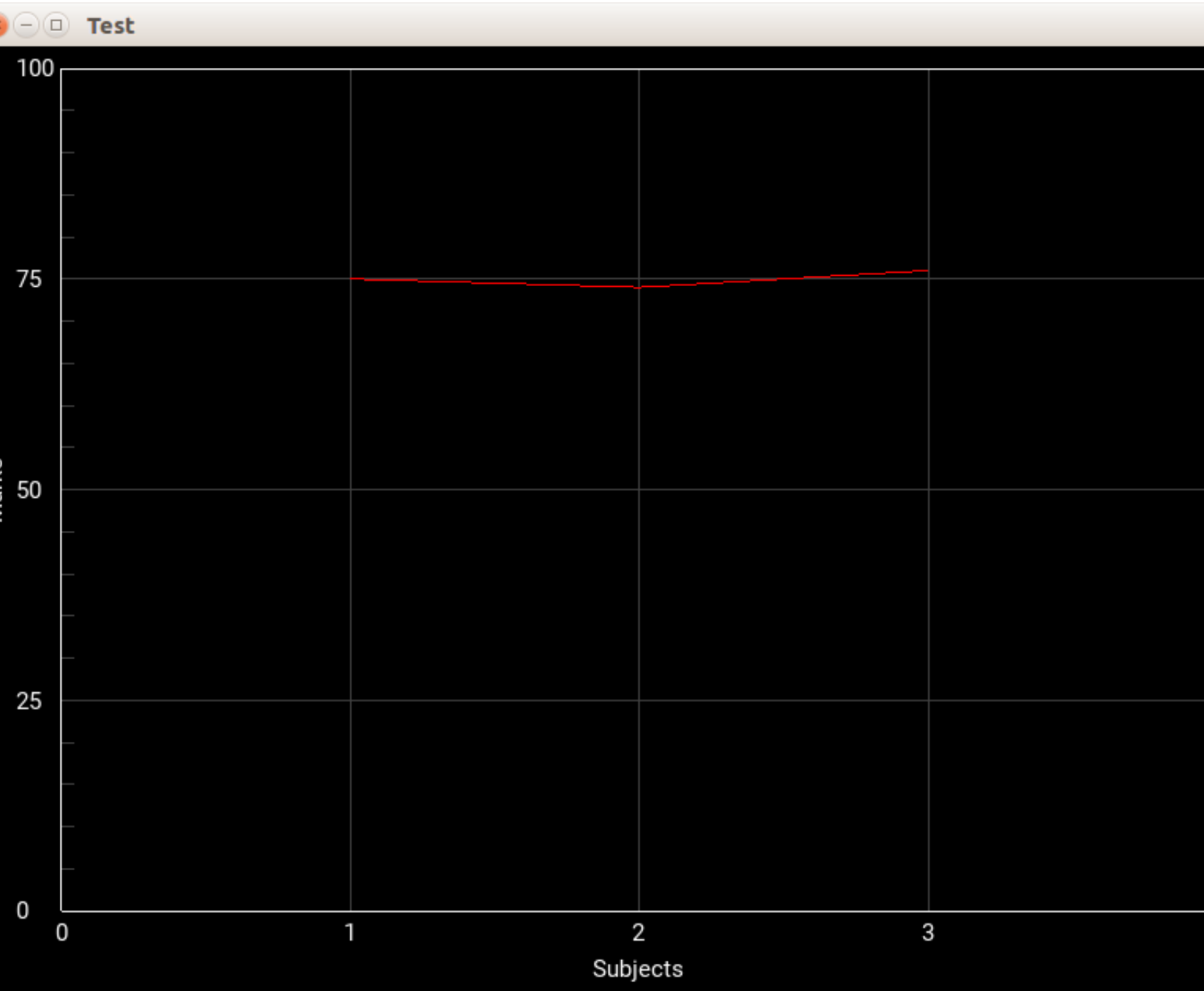

Figure 4: Screenshot for problem statement 1

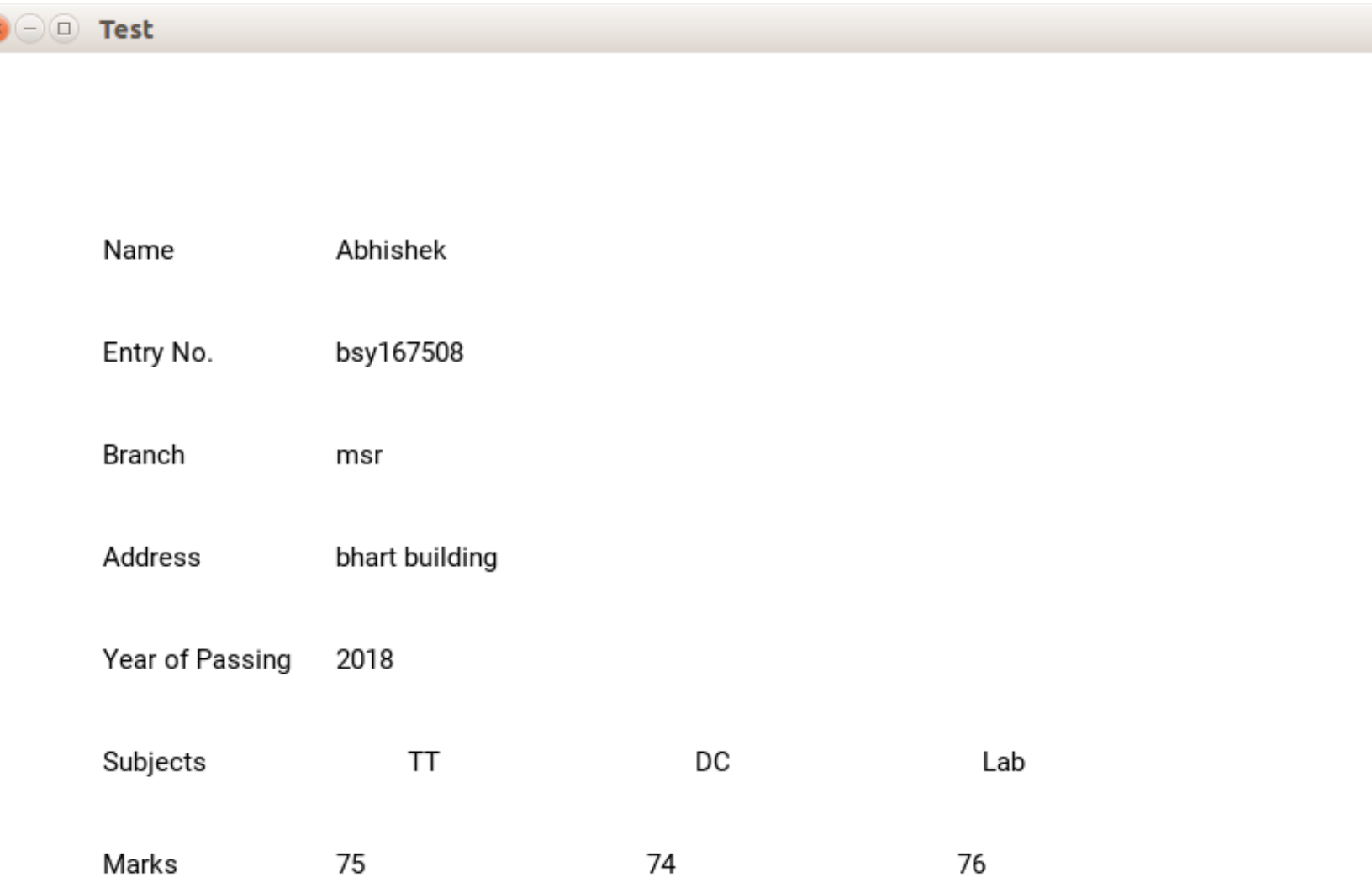

Figure 5: Screenshot for problem statement 1

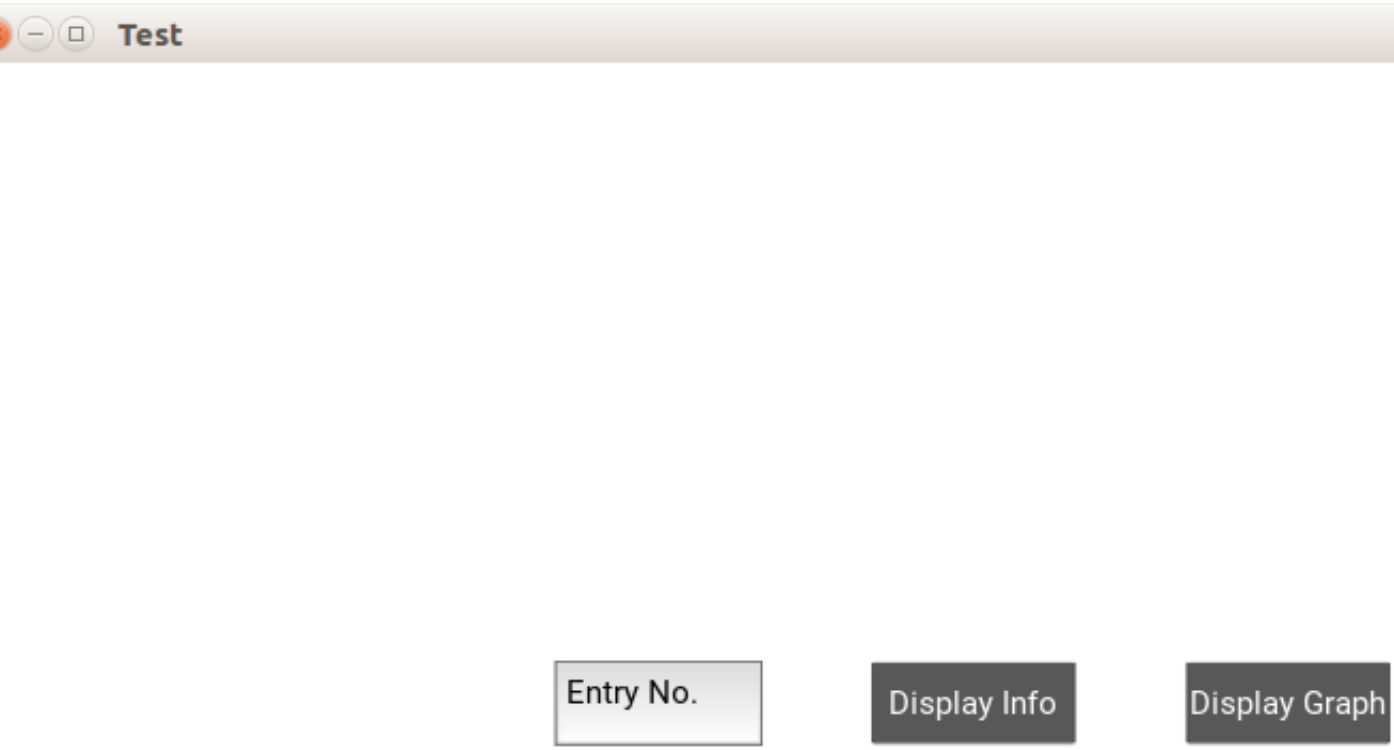

Figure 6: Screenshot for problem statement 1

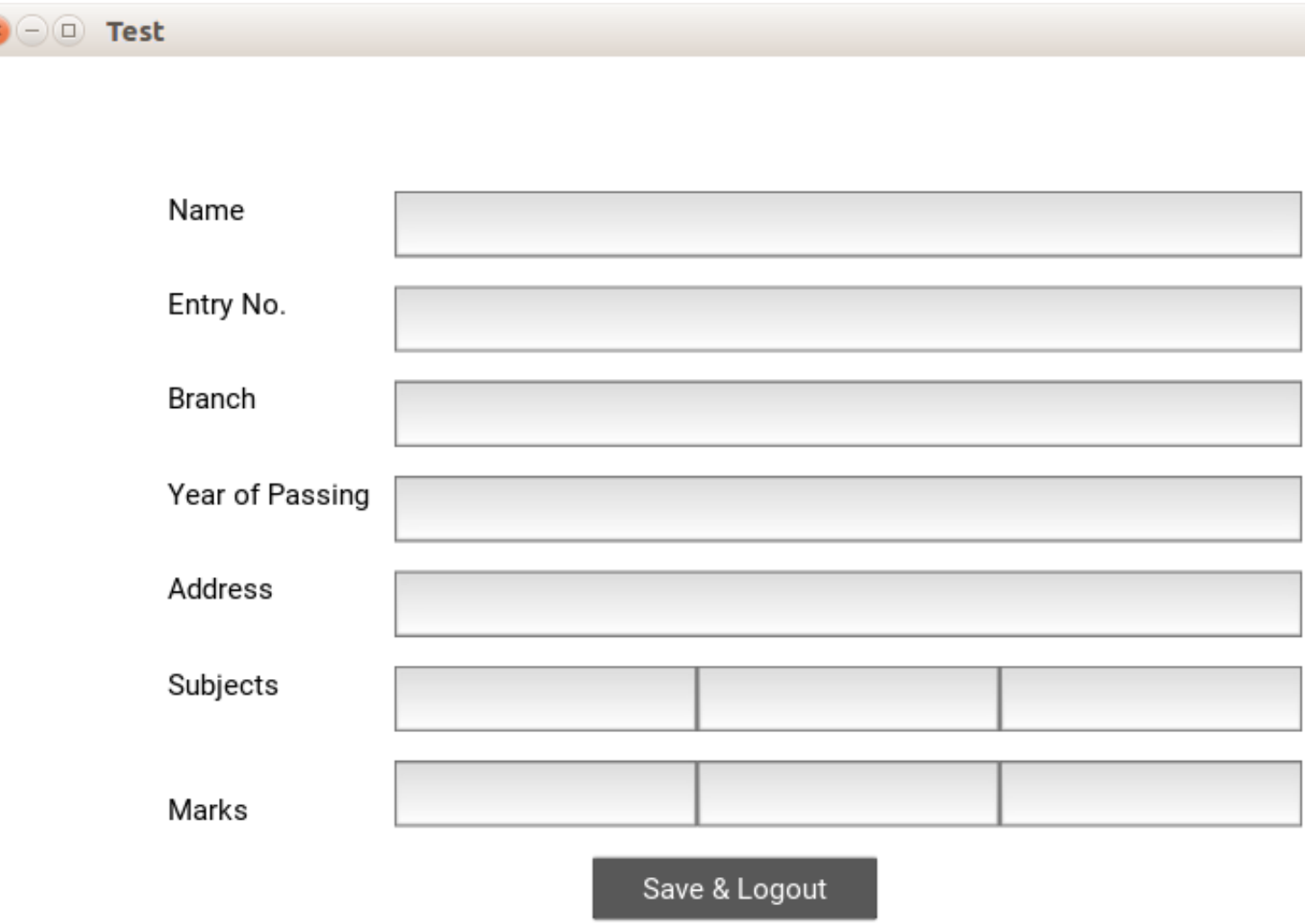

Figure 7: Screenshot for problem statement 1

Bibliography

[1] "kivy documentation." https://kivy.org/docs/api-kivy.uix.htmln.