

## Original Requirements

Parkwood Vale is a small primary school that serves the local community.

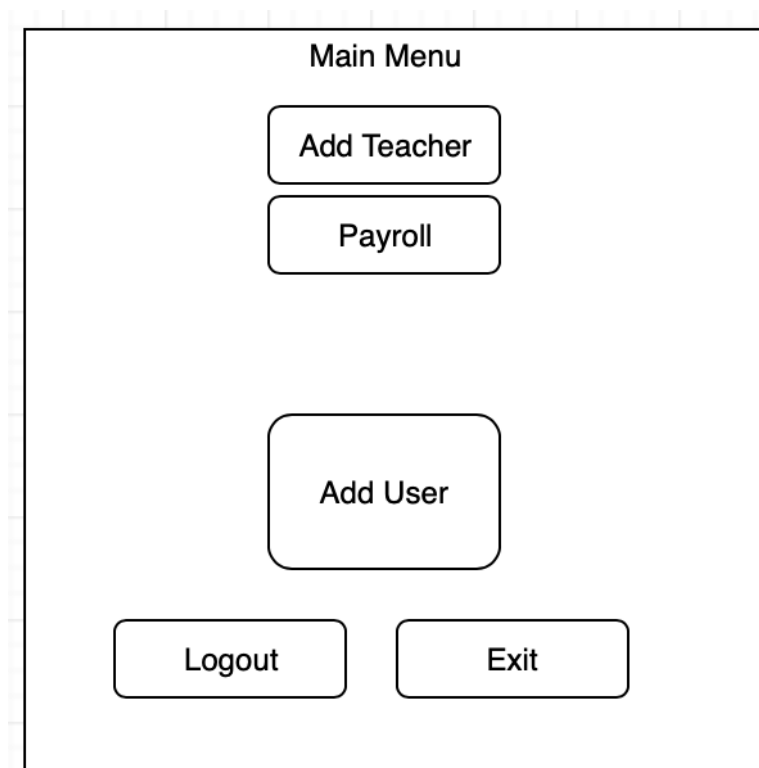
Parkwood Vale would like to begin storing data on a computerised system. Whilst the school could buy an off-the-shelf package, it has decided to commission you and your team to work together to develop a bespoke solution.

## Authentication

Data security is critical to the school and so it has insisted that the system has a login screen that requires a username and a password for authentication before accessing the main menu. The system must display a message stating whether login was successful or unsuccessful. There will need to be a way to add additional users and passwords.

## Main Menu and Navigation

Some of the school's staff are non-specialist computer users and they have requested that the system is user friendly; therefore, a Graphical User Interface (GUI) will be used. A partial design for the interface has been provided here:



## Add Teacher

The school has decided that it would like to store the following staff details:

- TeacherID
- Firstname
- Surname
- Address
- Postcode
- Qualification (such as BSc (Hons) Physics).

The form should also include buttons that:

- save the details to a file on disk called TeacherDetails.txt
- return to the main menu.

The school has provided a partial design of the user interface they would like to use:

**Add Teacher**

TeacherID  
Firstname  
Surname  
Address  
Postcode  
Qualification

Back Save

## Payroll

Parkwood Vale would like to calculate the correct amount of pay for individual teachers.

Users will enter the monthly salary (Gross Pay) and the system will calculate and display deductions (Tax, National Insurance and Pension Contribution), and the correct amount of take-home pay (Net Pay).

The following calculations should be used for the prototype software:

- Tax = 20% (0.2) of Gross Pay
- National Insurance = 14% (0.14) of Gross Pay
- Pension Contribution = 8% (0.08) of Gross Pay
- Deductions = Tax + National Insurance + Pension Contribution
- Net Pay = Gross Pay – Deductions.

They have decided that currently there is no need to store the results of these calculations.

A partial design for the user interface has been provided:

The image shows a window titled "Payroll" with a light gray background. Inside the window, there are several labels and input fields. On the left side, the labels are "Gross Pay", "Tax", "National Insurance", "Pension Contribution", "Deductions", and "Net Pay", arranged vertically. To the right of each label is a rectangular input field. Below the "Gross Pay" input field is a rounded rectangular button labeled "Calculate". At the bottom center of the window is another rounded rectangular button labeled "Back".

Parkwood Vale would like the system developed using the Python programming language to enable them to make additions and changes to the program at a later date.