PSEUDOCODE FOR THE MAIN METHODS

COMPUTE_PAYROLL() – Staff.java

（if the hours worked inputted in the GUI exceeds 40, an exception will be thrown there, therefore we don't need to check for that condition here)

return hours worked * 32 * 2 * 0.75

COMPUTE_PAYROLL() – Teacher.java

if teacher is full time

return 32 * rate * 2 * .85

else

return hours worked * rate * 2 * .76

DEGREE_RATE(STRING   degree) – Teacher.java

if

degree is phd then rate is 112

degree is master then rate is 82

degree is bachelor then rate is 42

TEACHER/STAFF_IS_DUPLICATE (TEACHER t, LIST teacherList) -- MyWindow.java

take in a teacher/staff and a list of teachers/staff as parameters

initialize a Boolean flag 'duplicate' to false

loop through the list

check if the teacher given equals any of the teachers in the list

update 'duplicate' accordingly

return 'duplicate'

REFRESH_EMPLOYEE_LIST() -- MyWindow.java

initialize an empty output string

loop through the list of departments

create a string of all the dept. info and append it to the empty string

set the text of a specific GUI textArea to the now full output String

CLEAR_FIELDS() -- MyWindow.java

    loop through all the components of the GUI

    if the component is a textfield or a checkbox, empty it

GET_DEPARTMENTS () -- MyWindow.java

    initialize a new department list

    populate the list with three departments (bio, chem, phys)

    try deserializing a file which contains a list of departments

    if the file does not exist yet, catch the fileNotFound exception

    return the list of departments (whether it's the base list or the deserialized list)

SAVE_DEPARTMENTS(LIST departments) -- MyWindow.java

    serialize 'departments' to a specified file

GET_VALIDATION_FAILURE_MESSAGE(ALL TEXTFIELDS) -- MyWindow.java

    if any of the textFields are empty or have the wrong datatype

    return a custom error string

WINDOW_CLOSING() -- MyWindow.java

    serialize the department list

MOUSE_CLICKED() on AddStaff/Teacher button – MyWindow.java

    get the validation failure message

    if the message is not null

        set the error text area to the failure message

    else

        initialize a new teacher/staff using the input from the textboxes to define the attributes

        loop through the departments list

        if he doesn't already exist in that department

            add the teacher to his specified department

        else

            throw a 'duplicate' exception and don't add

        if teacher added successfully, initialize a recordAdded Boolean to TRUE

    if recordAdded is False

        throw 'department not found' exception

    else

        clear the textboxes/checkboxes and refresh the employee list textArea