

```

/*
 * To change this license header, choose License Headers in Project
Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */
package presenter;

import java.sql.Connection;
import java.sql.Date;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.util.ArrayList;
import java.util.List;
import model.ActiveUser;
import model.BorrowedEquipments;
import model.Equipments;
import model.Students;
import utility.DBConnection;

/**
 *
 * @author Adarsha
 */
public class BorrowedEquipmentPersister {

    private Connection connection;
    private DBConnection utility;
    private PreparedStatement getAllBorrowedEquipmentList;
    private EquipmentPresenter equipmentPresenter;
    private StudentPresenter studentPresenter;
    private Equipments borrowedEquipment;
    private Students borrower;

    private PreparedStatement findBorrowedEquipmentsByName;
    private PreparedStatement findBorrowedEquipmentsByUsername;
    private PreparedStatement returnEquipment;
    private PreparedStatement updateEquipmentStockAfterReturning;
    private PreparedStatement checkOverDue;

    public BorrowedEquipmentPersister() {
        utility = new DBConnection();
        equipmentPresenter = new EquipmentPresenter();
        borrowedEquipment = new Equipments();
        borrower = new Students();
        studentPresenter = new StudentPresenter();

        try {
            this.connection = DBConnection.getConnection(); // database
connection
            if (connection != null) {
                getAllBorrowedEquipmentList =
connection.prepareStatement("SELECT * FROM borrowedequipments WHERE
(status = ? OR status = ?) ORDER BY borrow_date DESC");

```

```

        findBorrowedEquipmentsByName =
connection.prepareStatement("SELECT * FROM borrowedequipments WHERE
equipment_name LIKE ?");
        findBorrowedEquipmentsByUsername =
connection.prepareStatement("SELECT * FROM borrowedequipments WHERE
borrower_name LIKE ?");
        returnEquipment = connection.prepareStatement("UPDATE
borrowedequipments SET status = ?, returned_on_date = ? WHERE borrow_id =
?");
        updateEquipmentStockAfterReturning =
connection.prepareStatement("UPDATE equipments SET availableQuantity =
availableQuantity + 1 WHERE equipment_id = ? ");
        checkOverDue = connection.prepareStatement("UPDATE
borrowedequipments SET status = ? WHERE return_date < NOW() AND (status
=? OR status = ?)");
    }
} catch (SQLException e) {
    System.out.println("Connection Failed!");
    System.out.println("SQLException : " + e.getMessage());
}
}

```

```

List<BorrowedEquipments> getAllBorrowedEquipments() {
    List<BorrowedEquipments> equipmentsList = new ArrayList<>();
    try {
        checkOverDue.setString(1, "OverDue");
        checkOverDue.setString(2, "Borrowed");
        checkOverDue.setString(3, "OverDue");
        checkOverDue.executeUpdate();
        getAllBorrowedEquipmentList.setString(1, "Borrowed");
        getAllBorrowedEquipmentList.setString(2, "Overdue");

        ResultSet equipmentResult =
getAllBorrowedEquipmentList.executeQuery();

        System.out.println("Borrowed Equipments details reading from
the database.");
        while (equipmentResult.next()) {
            int borrowId = equipmentResult.getInt("borrow_id");
            int equipmentId = equipmentResult.getInt("equipment_id");
            String equipmentName =
equipmentResult.getString("equipment_name");
            String equipmentBrand =
equipmentResult.getString("brand");
            String equipmentType = equipmentResult.getString("type");
            String equipmentCampus =
equipmentResult.getString("campus");
            String equipmentBorrower =
equipmentResult.getString("borrower_name");
            String equipmentStatus =
equipmentResult.getString("status");
            Date borrowDate = equipmentResult.getDate("borrow_date");
            Date returnDate = equipmentResult.getDate("return_date");

```

```

        borrowedEquipment =
equipmentPresenter.findEquipmentsById(equipmentId).get(0);

        //borrower =
studentPresenter.findStudentsByName(equipmentBorrower).get(0);

        ActiveUser actU = new ActiveUser(equipmentBorrower);

        BorrowedEquipments newBorrowedEquipment = new
BorrowedEquipments(borrowedEquipment, actU, borrowDate, returnDate,
equipmentStatus);
        newBorrowedEquipment.setBorrowID(borrowId);
        equipmentsList.add(newBorrowedEquipment);
    }
    } catch (SQLException e) {
        System.out.println("SQL Exception: " + e.getMessage());
    }
    System.out.println("Final Equipment list to be sent from
persister is :"+ equipmentsList);
    return equipmentsList;
}

List<BorrowedEquipments> findEquipmentsByName(String keyword) {
    BorrowedEquipments equipment = new BorrowedEquipments();
    List<BorrowedEquipments> searchedEquipments = new ArrayList();
    try {
        findBorrowedEquipmentsByName.setString(1, "%" + keyword + "%");
        ResultSet equipmentResult =
findBorrowedEquipmentsByName.executeQuery();
        System.out.println("Borrowed Equipments details reading from
the database.");
        while (equipmentResult.next()) {
            int borrowId = equipmentResult.getInt("borrow_id");
            int equipmentId = equipmentResult.getInt("equipment_id");
            String equipmentName =
equipmentResult.getString("equipment_name");
            String equipmentBrand =
equipmentResult.getString("brand");
            String equipmentType = equipmentResult.getString("type");
            Date borrowDate = equipmentResult.getDate("borrow_date");
            Date returnDate = equipmentResult.getDate("return_date");
            String status = equipmentResult.getString("status");
            String borrowerUsername =
equipmentResult.getString("borrower_name");

            borrowedEquipment =
equipmentPresenter.findEquipmentsById(equipmentId).get(0);

            ActiveUser actU = new ActiveUser(borrowerUsername);
            BorrowedEquipments newBorrowedEquipment = new
BorrowedEquipments(borrowedEquipment, actU, borrowDate, returnDate,
status);
            newBorrowedEquipment.setBorrowID(borrowId);
            searchedEquipments.add(newBorrowedEquipment);
        }
    } catch (SQLException e) {

```

```

        System.out.println("SQL Exception: " + e.getMessage());
    }
    return searchedEquipments;
}

List<BorrowedEquipments> findEquipmentsbyBorrowerUsername(String
keyword) {
    BorrowedEquipments equipment = new BorrowedEquipments();
    List<BorrowedEquipments> searchedEquipments = new ArrayList();
    try {
        findBorrowedEquipmentsByUsername.setString(1,
"%"+keyword+"%");
        ResultSet equipmentResult =
findBorrowedEquipmentsByUsername.executeQuery();
        System.out.println("Borrowed Equipments details reading from
the database.");
        while (equipmentResult.next()) {
            int borrowId = equipmentResult.getInt("borrow_id");
            int equipmentId = equipmentResult.getInt("equipment_id");
            String equipmentName =
equipmentResult.getString("equipment_name");
            String equipmentBrand =
equipmentResult.getString("brand");
            String equipmentType = equipmentResult.getString("type");
            Date borrowDate = equipmentResult.getDate("borrow_date");
            Date returnDate = equipmentResult.getDate("return_date");
            String status = equipmentResult.getString("status");
            String borrowerUsername =
equipmentResult.getString("borrower_name");

            borrowedEquipment =
equipmentPresenter.findEquipmentsById(equipmentId).get(0);

            ActiveUser actU = new ActiveUser(borrowerUsername);
            BorrowedEquipments newBorrowedEquipment = new
BorrowedEquipments(borrowedEquipment, actU, borrowDate, returnDate,
status);

            newBorrowedEquipment.setBorrowID(borrowId);
            searchedEquipments.add(newBorrowedEquipment);
        }
    } catch (SQLException e) {
        System.out.println("SQL Exception: " + e.getMessage());
    }
    return searchedEquipments;
}

private java.sql.Date getSQLDate(java.util.Date date) {
    java.sql.Date date1 = null;
    if (date != null) {
        date1 = new java.sql.Date(date.getTime());
    }
    return date1;
}

boolean returnEquipment(BorrowedEquipments selectedEquipment) {
    try{
        int borrower_id = selectedEquipment.getBorrowID();

```

```

        int equipment_id = selectedEquipment.getEquipmentID();
        String status = selectedEquipment.getStatus();

        System.out.println("borrowID is :"+ borrower_id+" equipment
ID is "+equipment_id+" status is : "+status);

        returnEquipment.setString(1, status);
        returnEquipment.setDate(2,
getSQLDate(selectedEquipment.getReturned_onDate()));
        returnEquipment.setInt(3, borrower_id);
        int result = returnEquipment.executeUpdate();

        updateEquipmentStockAfterReturning.setInt(1, equipment_id);
        updateEquipmentStockAfterReturning.executeUpdate();

        if(result>0){
            System.out.println("The equipment has been returned
successfully");
            return true;
        }
    }catch(SQLException e) {
        System.out.println("SQL Exception: " + e.getMessage());
        return false;
    }

    return true;

}
}

```