Core Logic

Over View:

The Core Logic is the heart of the project in charge of all main functionality from adding to a database, retrieving from a database and displaying views. There are 6 main classes, an employee class, 4 derived employee classes, employee container class, user class, time class and audit class. These classes are responsible for the information the user enters depending on the type of information the user enters data the core logic will create a Full Time, Part Time, Contract or Seasonal Employee object. The Employee object will be associated with a company and added to the database. The core logic will interact with the database using queries to insert, select and modify tables, it will also interact with the GUI getting data from the user and displaying data to the user it will allow users to login and verify that they are a general or administrative user the core logic will keep track of the user’s permission level.

Some responsibilities include validating all employee object attributes to ensure the data for that type of employee is valid depending on the object-level validation the employee record will be set to “Active”. The core logic will also verify the user when they first login as an administrator or general users by checking the user table in the database. When a user adds an employee the GUI will only display fields valid to the employee specified, the core logic should know what type of employee object to create, the core logic will also know which database table it will try to access depending on the employee type and other attributes. The core logic will Keep track of number of piece and amount of time worked for a seasonal employee, track amount of time worked for all employees with the exception of contract employee through a time card class only a general user may enter time card information.

Tasks include gathering information from the user via the GUI adding the attributes to an employee object and saving the object to a database only fields that specific user can edit will be displayed. Another task is to be able to retrieve data from the database adding the information to an employee object and displaying information to the user. The core logic will Keep track of the type of user logged in, general users will have access to unique views that the administrator user will not and vice versa. Maintain an audit table to keep track of when an employee is being added/modified/inactive, log which user performed the change and when the change was performed, the audit class will act as a logger for any activity performed only an administrative user will be allowed to view audit table information.

General Log in Description

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| Flow of Activities for scenario General User Logging into the System |
| Main Flow:   1. General User connects to EMS-PMS home page. 2. System verifies the general user information. 3. If General user exists, User logs on. 4. Redirect to General User home page 5. General User Home Page, with tasks to be completed 6. Select an option from home page 7. Update User information 8. Repeat step 5 and 6 9. User logs off |
| Exception Conditions:  3. if system does not verify user exists   1. re-prompt user 2. after 10 attempts lock user out for 15 min |

Adding Employee Description

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| Flow of Activities for scenario Adding Employee into the System |
| Main Flow:   1. User connects to general user home page. 2. User Selects Add Employee tab. 3. Select Type of employee Seasonal, Full Time and Part Time. 4. Add Employee information. 5. Verify all employee fields are valid. 6. Repeat step 3,4 and 5 7. System adds employee to database. 8. Display if employee was added or not 9. Return to General user Home page |
| Exception Conditions:  3. Cannot enter any information for contract employee   1. Only administrative user can enter contract employee information. 2. If fields are valid 3. Re-prompt user to correct invalid information 4. Display error message |