

CLASS INVENTORY

#	Class Name	Access Modifier	Description	Will interact with
	CSVReader	public	Reads employee details to display on the system	Dashboard
	Dashboard	public	Main window that displays employee data, attendance, and payroll information.	AddEmployee, CSVReader, Employee, EmployeeLeaveTracker, EmployeeRecords, LeaveRequest, Login
	Employee	public	This class holds employee data, allows admin to view full employee list and information	AddEmployee, EmployeeRecords, Dashboard
	AddEmployee	public	Allows admin to add employees to the database	Employee
	EmployeeLeaveTracker	public	Holds information for leave management	LeaveRequest
	EmployeeRecords	public	Holds and displays employee payroll information, computes payroll	Employee, Dashboard
	LeaveRequest	public	Used for leave request management	Dashboard, EmployeeLeaveTracker
	LeaveRequestData	private	Manages leave requests	LeaveRequest
	Login	public	Other parts of the program need to use this class to handle logging in, so it needs to be accessible everywhere.	Dashboard, AddEmployee, CSVReader, Employee, EmployeeLeaveTracker, EmployeeRecords, LeaveRequest,
	User	public	Used to get first name and employee ID for welcome display through username after logging in	Dashboard

ATTRIBUTE INVENTORY

#	Attribute Name	Class Name	Data Type	Access Modifier	Description
1	CSV_FILE	AddEmployee	String	private	Stores the path to the CSV file that contains employee details.
2	dashboard	AddEmployee	Dashboard	private	An instance of the Dashboard class used to navigate back to the main dashboard.
3	jLabelTime	AddEmployee	javax.swing.JLabel	private	A label that displays the current time.
4	jLabelDate	AddEmployee	javax.swing.JLabel	private	A label that displays the current date.
5	jTableEmployees	AddEmployee	javax.swing.JTable	private	A table that displays the list of employees from the CSV file.
6	jTextFieldEmployeeNo	AddEmployee	javax.swing.JTextField	private	A text field where the employee number is entered.
7	jTextFieldLastname	AddEmployee	javax.swing.JTextField	private	A text field where the employee's last name is entered.
8	jTextFieldFirstname	AddEmployee	javax.swing.JTextField	private	A text field where the employee's first name is entered.
9	jTextFieldSSSno	AddEmployee	javax.swing.JTextField	private	A text field where the employee's SSS number is entered.
10	jTextFieldPhilhealthno	AddEmployee	javax.swing.JTextField	private	A text field where the employee's PhilHealth number is entered.
11	jTextFieldTINno	AddEmployee	javax.swing.JTextField	private	A text field where the employee's TIN is entered.
12	jTextFieldPagibigno	AddEmployee	javax.swing.JTextField	private	A text field where the employee's PAGIBIG number is entered.
13	userIDs	CSVReader	HashSet<String>	private	A set of unique user IDs loaded from the employee details CSV file.
14	employeeData	CSVReader	List<String[]>	private	A list of employee data rows loaded from the employee details CSV file.
15	leaveBalancesData	CSVReader	List<String[]>	private	A list of leave balances data rows loaded from the leave balances CSV file.
16	filePath	CSVReader	String	private	The file path of the employee details CSV file.
17	leaveBalancesFilePath	CSVReader	String	private	The file path of the leave balances CSV file.
18	jLabelGreet	Dashboard	JLabel	private	Label to display a welcome message to the user.
19	jTextFieldSearch	Dashboard	JTextField	private	Text field to enter employee ID for searching.
20	jButtonDashboard	Dashboard	JButton	private	Button to navigate to Dashboard section of the dashboard.
21	jButtonProfile	Dashboard	JButton	private	Button to navigate to Profile section of the dashboard.
22	jButtonWallet	Dashboard	JButton	private	Button to navigate to Wallet section of the dashboard.
23	jButtonSearch	Dashboard	JButton	private	Button to search an employee in the dashboard.
24	jButtonSupport	Dashboard	JButton	private	Button to navigate to Support section of the dashboard.
25	jLabelTime	Dashboard	JLabel	private	Labels to display the current time.
26	jLabelDate	Dashboard	JLabel	private	Labels to display the current date.
27	jTabbedMain	Dashboard	JTabbedPane	private	Tabbed pane to switch between different sections of the dashboard.
28	jLabelDashname	Dashboard	JLabel	private	Label to display employee's name on Dashboard section.
29	jLabelDashempnum	Dashboard	JLabel	private	Label to display employee's employee number/ID on the Dashboard section.
30	jLabelDashbirthday	Dashboard	JLabel	private	Label to display employee's birthday on the Dashboard section.
31	jLabelFullname	Dashboard	JLabel	private	Label to display employee's full name on the Profile section.
32	jLabelEmpnum	Dashboard	JLabel	private	Label to display employee's employee number/ID on the Profile section.
33	jLabelBirthday	Dashboard	JLabel	private	Label to display employee's birthday on the Profile section.
34	jLabelAddress	Dashboard	JLabel	private	Label to display employee's address on the Profile section.
35	jLabelContact	Dashboard	JLabel	private	Label to display employee's contact number on the Profile section.
36	jLabelPosition	Dashboard	JLabel	private	Label to display employee's position on the Profile section.
37	jLabelSuper	Dashboard	JLabel	private	Label to display employee's supervisor on the Profile section.
38	jLabelHourlyrate	Dashboard	JLabel	private	Label to display employee's hourly rate on the Wallet section.
39	jLabelBasicsalary	Dashboard	JLabel	private	Label to display employee's basic salary on the Wallet section.
40	jLabelRice	Dashboard	JLabel	private	Label to display employee's rice subsidy on the Wallet section.
41	jLabelPhoneallowance	Dashboard	JLabel	private	Label to display employee's phone allowance on the Wallet section.
42	jLabelClothingallowance	Dashboard	JLabel	private	Label to display employee's clothing allowance on the Wallet section.
43	jLabelSSS	Dashboard	JLabel	private	Label to display employee's SSS number on the Wallet section.
44	jLabelTin	Dashboard	JLabel	private	Label to display employee's TIN on the Wallet section.

45	jLabelPagibig	Dashboard	JLabel	private	Label to display employee's PAGIBIG number on the Wallet section.
46	jLabelPhilhealth	Dashboard	JLabel	private	Label to display employee's PhilHealth number on the Wallet section.
47	jLabelGrosssalary	Dashboard	JLabel	private	Label to display employee's gross salary on the Wallet section.
48	jLabelWithholding	Dashboard	JLabel	private	Label to display employee's withholding tax on the Wallet section.
49	jLabelNetsalary	Dashboard	JLabel	private	Label to display employee's net salary on the Wallet section.
50	jButtonLeavereq	Dashboard	JButton	private	Button to open the Leave Request window.
51	jButtonLogout	Dashboard	JButton	private	Button to log out and return to the Login window.
52	jButtonViewAllEmployees	Dashboard	JButton	private	Button to open the Employee window displaying all employees.
53	CSV_FILE	Employee	String	private	The path to the CSV file containing employee details.
54	dashboard	Employee	Dashboard	private	Reference to the Dashboard instance to enable returning to the dashboard from the Employee window.
55	jTableEmployees	Employee	JTable	private	The table displaying employee information.
56	jLabelTime	Employee	JLabel	private	Label to display the current time.
57	jLabelDate	Employee	JLabel	private	Label to display the current date.
58	jButtonViewEmployee	Employee	JButton	private	Button to view details of the selected employee.
59	jButtonUpdate	Employee	JButton	private	Button to update details of the selected employee.
60	jButtonDashboard	Employee	JButton	private	Button to return to the Dashboard window.
61	jButtonDelete	Employee	JButton	private	Button to delete the selected employee.
62	jButtonAdd	Employee	JButton	private	Button to add a new employee.
63	sickLeaveBalance	EmployeeLeaveTracker	int	private	Stores the balance of sick leave days an employee has.
64	vacationLeaveBalance	EmployeeLeaveTracker	int	private	Stores the balance of vacation leave days an employee has.
65	birthdayLeaveBalance	EmployeeLeaveTracker	int	private	Stores the balance of birthday leave days an employee has.
66	currentEmployeeId	EmployeeRecords	String	private	Stores the ID of the current employee being processed.
67	dashboard	EmployeeRecords	Dashboard	private	Holds a reference to the Dashboard instance to interact with the dashboard.
68	jTextFieldEmployeeNo	EmployeeRecords	JTextField	private	A text field to display or enter the employee number.
69	jTextFieldLastname	EmployeeRecords	JTextField	private	A text field to display or enter the employee's last name.
70	jTextFieldFirstname	EmployeeRecords	JTextField	private	A text field to display or enter the employee's first name.
71	jTextFieldSssno	EmployeeRecords	JTextField	private	A text field to display or enter the employee's SSS number.
72	jTextFieldPhilhealthno	EmployeeRecords	JTextField	private	A text field to display or enter the employee's Philhealth number.
73	jTextFieldTinno	EmployeeRecords	JTextField	private	A text field to display or enter the employee's TIN number.
74	jTextFieldPagibigno	EmployeeRecords	JTextField	private	A text field to display or enter the employee's Pag-IBIG number.
75	jComboBoxMonths	EmployeeRecords	JComboBox	private	A dropdown that allows the user select a month.
76	jLabelTime	EmployeeRecords	JLabel	private	A label to display the current time.
77	jLabelDate	EmployeeRecords	JLabel	private	A label to display the current date.
78	jTextFieldBasicsalary	EmployeeRecords	JTextField	private	A text field to display or enter the basic salary of the employee.
79	jTextFieldTotalallowances	EmployeeRecords	JTextField	private	A text field to display or enter the total allowances of the employee.
80	jTextFieldGrosspay	EmployeeRecords	JTextField	private	A text field to display or enter the gross pay of the employee.
81	jTextFieldTotaldeductions	EmployeeRecords	JTextField	private	A text field to display or enter the total deductions for the employee.
82	jTextFieldNetpay	EmployeeRecords	JTextField	private	A text field to display or enter the net pay of the employee.
83	jTextFieldHourlyrate	EmployeeRecords	JTextField	private	A text field to display or enter the hourly rate of the employee.
84	jTextFieldPayslipofthemoth	EmployeeRecords	JTextField	private	A text field to display or enter the payslip of the month for the employee.
85	leaveTracker	LeaveRequest	EmployeeLeaveTracker	private	Manages and tracks the leave balances for employees.
86	csvReader	LeaveRequest	CSVReader	private	Reads CSV files containing leave balance data.
87	leaveBalances	LeaveRequest	List<String[]>	private	Stores the parsed leave balance data from CSV.
88	leaveRequests	LeaveRequest	List<LeaveRequestData>	private	Stores all leave requests submitted by employees.
89	leaveBalancesFilePath	LeaveRequest	String	private	File path to the CSV containing leave balance data.
90	dashboard	LeaveRequest	Dashboard	private	Holds a reference to the Dashboard instance for navigation.
91	jLabelTime	LeaveRequest	javax.swing.JLabel	private	Displays the current time on the UI.
92	jLabelDate	LeaveRequest	javax.swing.JLabel	private	Displays the current date on the UI.

93	jTableRequest	LeaveRequest	javax.swing.JTable	private	Displays leave requests in a table format on the UI.
94	jComboBoxLeavetype	LeaveRequest	javax.swing.JComboBox	private	Dropdown list for selecting the type of leave in the UI.
95	jTextFieldEmployeeeno	LeaveRequest	javax.swing.JTextField	private	Text field for entering employee number in the UI.
96	jDateChooser_StartDate	LeaveRequest	com.toedter.calendar. JDateChooser	private	Date picker for selecting the start date of leave in the UI.
97	jDateChooser_EndDate	LeaveRequest	com.toedter.calendar. JDateChooser	private	Date picker for selecting the end date of leave in the UI.
98	jTextFieldReason	LeaveRequest	javax.swing.JTextField	private	Text field for entering the reason for leave in the UI.
99	jTabbedMainRequest	LeaveRequest	javax.swing.JTabbedPane	private	Tabbed pane for navigating between different sections in the UI.
100	jButtonViewrequests	LeaveRequest	javax.swing.JButton	private	Button for viewing leave requests in the UI.
101	jButtonAddrequest	LeaveRequest	javax.swing.JButton	private	Button for adding a new leave request in the UI.
102	jButtonSubmit	LeaveRequest	javax.swing.JButton	private	Button for submitting a leave request in the UI.
103	jButtonCancel	LeaveRequest	javax.swing.JButton	private	Button for canceling a leave request in the UI.
104	jButtonWithdrawleave	LeaveRequest	javax.swing.JButton	private	Button for withdrawing a leave request in the UI.
105	jButtonClear	LeaveRequest	javax.swing.JButton	private	Button for clearing input fields in the UI.
106	jButtonDashboard	LeaveRequest	javax.swing.JButton	private	Button for returning to the dashboard from the leave request UI.
107	CSV_FILE	Login	String	private	Path to the CSV file ("src/motorph9/Credentials.csv") containing user credentials.
108	jBtnLogin	Login	JButton	private	Button component for user login.
109	jLblLogo	Login	JLabel	private	Label component displaying logo image.
110	jLblUname	Login	JLabel	private	Label component for username prompt.
111	jLblmotorPay	Login	JLabel	private	Label component displaying "PAY".
112	jLblPword	Login	JLabel	private	Label component for password prompt.
113	jPnlBlack	Login	JPanel	private	Panel component with black background.
114	jPnlDarkBlue	Login	JPanel	private	Panel component with dark blue background.
115	jPwordField	Login	JPasswordField	private	Password field component for password input.
116	jUnameField	Login	JTextField	private	Text field component for username input.
117	username	User	String	private	Stores the username of the user.
118	firstName	User	String	private	Stores the first name of the user.
119	lastName	User	String	private	Stores the last name of the user.
120	email	User	String	private	Stores the email address of the user.
121	employeeid	User	String	private	Stores the employee ID of the user.
122	department	User	String	private	Stores the department of the user.
123	position	User	String	private	Stores the position/title of the user.
124	phoneNumber	User	String	private	Stores the phone number of the user.

METHOD INVENTORY

#	Method Name	Class Name	Return Type	Access Modifier	Description
	loadUserIDs()	CSVReader	void	public	loads user IDs from csv
	isValidUserID(String userID)	CSVReader	boolean	public	validates userIDs in boolean
	getUserInfo(String userID)	CSVReader	String	public	gets validated user ID
	getEmployeeInfo(String employeeNo)	CSVReader	String	public	gets employee info from csv
	loadLeaveBalances(String leaveBalancesFilePath)	CSVReader	void	public	loads employee leave balances data from csv
	loadLeaveBalancesData()	CSVReader	void	public	loads employee leave balances data from csv
	getEmployeeInfoFromLeaveBalances(String employeeNo)	CSVReader	void	public	gets employee leave balances data from csv
writeLeaveBalancesCSV(String leaveBalancesFilePath, List<String		CSVReader	String	public	writes data for employee leave balances
	showEmployeeDetails(String employeeId)	Dashboard	void	private	displays employee details on the dashboard, profile, and wallet panels from provided employee ID
	setButtonsEnabled(boolean enabled)	Dashboard	void	private	enables or disables the dashboard buttons based on input
	Timer	Dashboard	new		used for time displayed
	updateTimeAndDate	Dashboard	void	private	updates time and date to current
	initComponents	Dashboard	void	private	initializes components in java swing class
	jButtonLeaveReqActionPerformed(java.awt.event.ActionEvent e)	Dashboard	void	private	opens LeaveRequest frame and disposes current frame
	jButtonDashboardActionPerformed(java.awt.event.ActionEvent e)	Dashboard	void	private	displays Dashboard tab from tabbed panels
	jButtonProfileActionPerformed(java.awt.event.ActionEvent e)	Dashboard	void	private	displays Profile tab from tabbed panels
	jButtonWalletActionPerformed(java.awt.event.ActionEvent e)	Dashboard	void	private	displays Wallet tab from tabbed panels
	jButtonSupportActionPerformed(java.awt.event.ActionEvent e)	Dashboard	void	private	displays Support tab from tabbed panels
	jButtonSearchActionPerformed(java.awt.event.ActionEvent e)	Dashboard	void	private	calls employee details with search input text
	jButtonLogoutActionPerformed(java.awt.event.ActionEvent e)	Dashboard	void	private	opens Login frame and disposes current frame
jButtonViewAllEmployeesActionPerformed(java.awt.event.ActionEvent e)		Dashboard	void	private	opens Employee frame and disposes current frame
	jTextFieldSearchMouseClicked(java.awt.event.MouseEvent e)	Dashboard	void	private	clears search input field
	Employee(Dashboard dashboard)	Employee	void	public	constructor for employee class and initializes GUI components
	updateTimeAndDate()	Employee	void	private	updates time and date to current on the GUI
	populateTableFromCSV(String filePath)	Employee	void	public	populates the jTable with data from csv
	updateEmployeeDetails()	Employee	void	private	updates employee details in the jTable and saves changes made to the csv
	refreshJTable()	Employee	void	private	refreshes jTable by clearing and repopulating from the csv
	updateCSVFile(String employeeNumber)	Employee	void	private	updates csv by removing the employee with the specified employee number
	updateCSVFile(String lastName, String firstName, String sssNo, String philHealthNo, String tinNo, String pagibigNo, int selectedRow)	Employee	void	public	updates csv with updated employee details
	jButtonUpdateActionPerformed(java.awt.event.ActionEvent e)	Employee	void	private	updates employee details in the jTable and saves changes made to the csv
	jButtonDashboardActionPerformed(java.awt.event.ActionEvent e)	Employee	void	private	opens Dashboard frame and disposes current frame
	jButtonViewEmployeeActionPerformed(java.awt.event.ActionEvent e)	Employee	void	private	opens EmployeeRecords frame and disposes current frame
	jButtonDeleteActionPerformed(java.awt.event.ActionEvent e)	Employee	void	private	deletes selected employee from the jTable and updates csv
	jButtonAddActionPerformed(java.awt.event.ActionEvent evt)	Employee	void	private	opens AddEmployee frame and disposes current frame
	main(String args[])	Employee	void	public	main method
	jBtnLoginActionPerformed(java.awt.event.ActionEvent evt)	Login	void	private	validates credentials and logs in the user if credentials are correct
	validateLogin(String userName, String passWord)	Login	user	private	validates username and password by checking the csv and returns "user" object if credentials are correct
	EmployeeLeaveTracker	EmployeeLeaveTracker	void	public	constructor to initialize employee leave balances
	getSickLeaveBalance	EmployeeLeaveTracker	int	public	returns current sick leave balance of the selected employee
	getVacationLeaveBalance	EmployeeLeaveTracker	int	public	returns current vacation leave balance of the selected employee
	getBirthdayLeaveBalance	EmployeeLeaveTracker	int	public	returns current birthday leave balance of the selected employee
	setSickLeaveBalance	EmployeeLeaveTracker	void	public	sets the sick leave balance of the employee
	setVacationLeaveBalance	EmployeeLeaveTracker	void	public	sets the vacation leave balance of the employee
	setBirthdayLeaveBalance	EmployeeLeaveTracker	void	public	sets the birthday leave balance of the employee
	hasSufficientLeave	EmployeeLeaveTracker	boolean	public	checks if employee has sufficient leave balance for specified type and duration
	deductLeave	EmployeeLeaveTracker	void	public	deducts leave duration from corresponding leave balance type
	User(String username, String firstName, String employeeId)	User	n/a	public	initializes a new User object with provided username, firstname, and employeeId

	User()	User	n/a	public	initializes a new User object with default values for username, firstname, and employeeId
	setFirstname(String firstName)	User	void	public	sets the first name of the User object
	getUsername()	User	String	public	returns the username of the User object
	getFirstName()	User	String	public	returns first name of the User object
	getEmployeeId()	User	String	public	returns employee ID of the User object
	updateTimeAndDate	AddEmployee	void	private	Updates the current time and date in the employee records.
	populateTableFromCSV(String filePath)	AddEmployee	void	public	Populates the employee table with data from a CSV file located at the given file path.
	updateTimeAndDate	LeaveRequest	void	private	Updates the current time and date in the leave request records.
	updateTableModel	LeaveRequest	void	private	Updates the model of the table displaying leave requests, typically to refresh the data view.
	loadLeaveTracker(String csvFile)	LeaveRequest	EmployeeLeaveTracker	private	Loads leave request data from a CSV file into the leave tracker system.
	calculateLeaveDuration(String startDate, String endDate)	LeaveRequest	int	private	Calculates the duration of the leave in days, given the start and end dates.
	isValidDateFormat(String date)	LeaveRequest	boolean	private	Checks if the provided date string follows a valid date format.
	updateTimeAndDate	EmployeeRecords	void	private	Updates the current time and date in the employee records.
	initializeMonthComboBox	EmployeeRecords	void	private	Initializes a combo box (dropdown menu) with the months of the year for user selection.
	calculatePagibigDeduction	EmployeeRecords	static double	private	Calculates the Pag-IBIG fund deduction from an employee's salary.
	calculateSSSDeduction(double basicSalary)	EmployeeRecords	static double	private	Calculates the Social Security System (SSS) deduction based on the employee's basic salary.
	calculateWithholdingTax(double netSalary)	EmployeeRecords	static double	private	Calculates the withholding tax based on the employee's net salary.
	getWeekdaysInMonth(String monthName, int year)	EmployeeRecords	int	public	Calculates the number of weekdays in a specified month and year.
	convertMonthNameToNumber(String monthName)	EmployeeRecords	int	private	Converts the name of a month (e.g., "January") to its corresponding numerical value (e.g., 1).
	getLeaveType	LeaveRequestData	String	public	Retrieves the type of leave requested.
	getStartDate	LeaveRequestData	String	public	Retrieves the start date of the leave.
	getEndDate	LeaveRequestData	String	public	Retrieves the end date of the leave.
	getReason	LeaveRequestData	String	public	Retrieves the reason for the leave request.
	getStatus	LeaveRequestData	String	public	Retrieves the current status of the leave request.
	setStatus(String status)	LeaveRequestData	String	public	Sets the status of the leave request.
	getLeaveDuration	LeaveRequestData	int	public	Retrieves the duration of the leave in days.

INSTRUCTIONS

- 1 Fill out the Learner/Group Details below.
- 2 In the *Class Diagram* tab, paste the photo of your class diagram.
- In the *Class Inventory* tab, fill out the necessary details based on your class diagram:
 - 3 **Class Name** - indicate the class name.
Access Modifier - select from the dropdown the access modifier of the class
Description - describe briefly what the object the class represents
- In the *Attribute Inventory* tab, fill out the necessary details based on your class diagram:
 - 4 **Attribute Name** - specify the name of the attribute.
Class Name - indicate the name of the class to which the attribute belongs to.
Data Type - specify the data type of the attribute based on the given dataset.
Access Modifier - select from the dropdown the access modifier of the attribute.
Description - Describe the data that the attribute would hold or store in the class.
- In the *Method Inventory* tab, fill out the necessary details based on your class diagram:
 - 5 **Method Name** - specify the name of the method.
Class Name - indicate the name of the class to which the method belongs to.
Return Type - specify the return type of the method based on the behavior of the class.
Access Modifier - select from the dropdown the access modifier of the method.
Description - Describe the actions the method would perform in the class specified.
- 6 Remove all instructions in **red**.

LEARNER/GROUP DETAILS

Group No./Name	9
Learner/Group Members:	Ainah Pagulayan
	Anna Patricia Evasco
	Jesus Elijah Santos
	Kim Charlotte Anicete
	Kristine Paul Garcia
	Patrick Paul Dela Cruz
	Shekinah Jabez Florentino
	Xyril Anne Fabellon