

Pay Slip Generation System (PSG System)

Project Description:

The Pay Slip Generation System (PSG System) is a C++-based application designed to automate the payroll management process for organizations. It efficiently handles employee data storage, salary calculations, and pay slip generation for two types of employees:

- Permanent Employees (with structured allowances & deductions)
- Contractual Employees (with fixed salary and tax deductions)

The system provides a menu-driven interface for administrators to:

- Add employee details
- Calculate salaries with appropriate allowances & deductions
- Generate formatted pay slips
- Manage overtime payments
- Configure tax rates and allowances

Key Features Implemented

1. Professional Code Structure:

- Proper class hierarchy with base Employee class
- Derived classes for PermanentEmployee and ContractualEmployee
- Separation of concerns with dedicated manager classes

1. Complete Functionality:

- Employee data management
- Salary calculations with all specified components
- Pay slip generation
- Overtime management
- System configuration

2. Error Handling:

- Input validation
- File operation error checking

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3. Professional Output Formatting:

- Formatted pay slips
- Tabular overtime reports

4. Data Persistence:

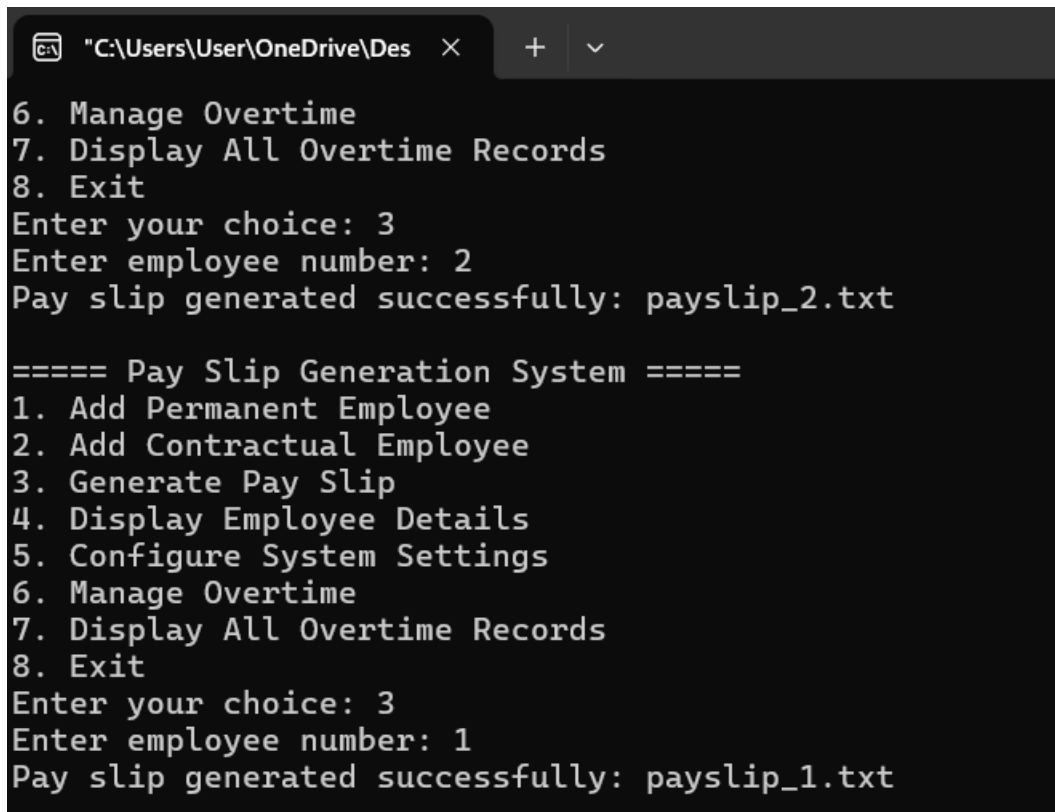
- Binary file storage for employee records
- Separate storage for overtime records

5. Configuration Management:

- Global system configuration for rates and allowances

6. User-Friendly Interface:

- Clear menu system
- Intuitive prompts



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6. Manage Overtime
7. Display All Overtime Records
8. Exit
Enter your choice: 3
Enter employee number: 2
Pay slip generated successfully: payslip_2.txt

===== Pay Slip Generation System =====
1. Add Permanent Employee
2. Add Contractual Employee
3. Generate Pay Slip
4. Display Employee Details
5. Configure System Settings
6. Manage Overtime
7. Display All Overtime Records
8. Exit
Enter your choice: 3
Enter employee number: 1
Pay slip generated successfully: payslip_1.txt
```

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===== Pay Slip Generation System =====
1. Add Permanent Employee
2. Add Contractual Employee
3. Generate Pay Slip
4. Display Employee Details
5. Configure System Settings
6. Manage Overtime
7. Display All Overtime Records
8. Exit
Enter your choice: 4
Enter employee number: 2

Employee Details:
Number: 2
Name: Rahim
Address: Rajshahi
Department: Transport
Designation: Deliveryman
Type: Contractual
Gross Salary: 5000
Professional Tax: 200
Income Tax: 100
Net Salary: 4700
```

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===== Pay Slip Generation System =====
1. Add Permanent Employee
2. Add Contractual Employee
3. Generate Pay Slip
4. Display Employee Details
5. Configure System Settings
6. Manage Overtime
7. Display All Overtime Records
8. Exit
Enter your choice: 6
Enter employee number: 1
Enter employee name: Fahim
Enter overtime hours: 10
Overtime record added successfully.
Overtime records saved to file.
```

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===== Pay Slip Generation System =====
```

1. Add Permanent Employee
2. Add Contractual Employee
3. Generate Pay Slip
4. Display Employee Details
5. Configure System Settings
6. Manage Overtime
7. Display All Overtime Records
8. Exit

Enter your choice: 7

Overtime Dues Report:

Emp No.	Employee Name	Overtime Hours	Overtime Dues
1	Fahim	10	4000

```
===== Pay Slip Generation System =====
```

1. Add Permanent Employee
2. Add Contractual Employee
3. Generate Pay Slip
4. Display Employee Details
5. Configure System Settings
6. Manage Overtime
7. Display All Overtime Records
8. Exit

Enter your choice: 5

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===== System Configuration =====
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1. Set Dearness Allowance Rate
2. Set HRA Rate
3. Set Medical Allowance
4. Set Professional Tax
5. Back to Main Menu

Enter your choice: |

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===== Pay Slip Generation System =====
1. Add Permanent Employee
2. Add Contractual Employee
3. Generate Pay Slip
4. Display Employee Details
5. Configure System Settings
6. Manage Overtime
7. Display All Overtime Records
8. Exit
Enter your choice: 1
Enter employee number: 1
Enter employee name: Fahim
Enter employee address: Rajshahi
Enter employee department: Sales
Enter employee designation: Salesman
Enter basic salary: 15000
Enter income tax: 500
Employee added successfully!
```

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===== Pay Slip Generation System =====
1. Add Permanent Employee
2. Add Contractual Employee
3. Generate Pay Slip
4. Display Employee Details
5. Configure System Settings
6. Manage Overtime
7. Display All Overtime Records
8. Exit
Enter your choice: 2
Enter employee number: 2
Enter employee name: Rahim
Enter employee address: Rajshahi
Enter employee department: Transport
Enter employee designation: Deliveryman
Enter gross salary: 5000
Enter income tax: 100
Employee added successfully!
```

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