**Case Study 2: Batch Payroll Application**

**Functional Requirements:**

1. The system must store detailed employee information including payment type, salary/hourly rate, commission, and union dues.
2. It must calculate wages for hourly employees based on submitted timecards.
3. It must add overtime pay for hours worked beyond 8 hours in a day.
4. It must process monthly payments for salaried employees automatically.
5. It must combine base salary and commission for commission-based employees.
6. It must support different payment methods (mail, pickup, or direct deposit).
7. It must automatically deduct union dues and other service charges before payment.
8. It must execute payment generation according to the pay schedule.
9. It must update the employee’s last payment date once payment is completed.
10. It must generate payroll reports for administrative review.

**Non-Functional Requirements:**

1. **Accuracy:** All payroll calculations must be precise with no rounding or calculation errors.
2. **Security:** Salary and employee data must be strictly protected and accessible only by authorized users.
3. **Performance:** The system should complete payroll processing in minimal time, even for large datasets.
4. **Reliability:** Payroll runs should not fail or produce incomplete results.
5. **Maintainability:** Admins should be able to update employee data easily without system downtime.
6. **Auditability:** All payment transactions should be logged for auditing.
7. **Availability:** The payroll service must be operational during working days.
8. **Compliance:** The system should follow legal and organizational payroll policies.