

Algorithms (Nextay)



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1 Login algorithm

```
1: Input: entered_password, username
2: Retrieve encrypted_password from database for username
3: decrypted_password  $\leftarrow$  Decrypt(encrypted_password)
4: if decrypted_password = entered_password then
5:   Allow login
6: else
7:   Deny login
8: end if
```

2 Store Employee Info

```
1: Input: employeeInfo
2: encrypted_password  $\leftarrow$  Encrypt(employeeInfo.raw_password)
3: Store user_info and encrypted_password in database
```

3 Salary Calculation Based on Attendance

```
1: Input: attendance_percentage, base_salary, award_attendance, penalty_attendance
2: if attendance_percentage = award_attendance then
3:   salary  $\leftarrow$  base_salary + bonus
4: else if attendance_percentage < penalty_attendance then
5:   salary  $\leftarrow$  base_salary - (base_salary  $\times$  (penalty_attendance - attendance_percentage)/100)
6: else
7:   salary  $\leftarrow$  base_salary
8: end if
```

4 Profit Calculation

```
1: Input: start_date, end_date
2: expenses  $\leftarrow$  Retrieve expenses between start_date and end_date
3: earnings  $\leftarrow$  Retrieve earnings between start_date and end_date
4: total_expenses  $\leftarrow$  Sum(expenses)
5: total_earnings  $\leftarrow$  Sum(earnings)
6: profit  $\leftarrow$  total_earnings - total_expenses
```

5 Room Payment Calculation

```
1: Input: check_in_time, check_out_time, daily_rate
2: number_of_days  $\leftarrow$  CalculateDays(check_in_time, check_out_time)
3: if number_of_days  $\leq$  1 then
4:   bill  $\leftarrow$  daily_rate
5: else
6:   bill  $\leftarrow$  daily_rate  $\times$  number_of_days
7: end if
```
