

# JavaScript Assignment

## Console Banking Application (Without Classes)

### Objective

Create a Console-Based Banking System using JavaScript (Node.js) without using classes, readline, database, or external libraries. The application must run automatically using: `node index.js`

### Level 1 – Single Account Banking

- Create an account object with `accountNumber`, `name`, `balance`, `transactions`.
- Implement functions: `deposit`, `withdraw`, `checkBalance`.
- Deposit must be greater than 0.
- Withdrawal must not exceed balance.
- Record all transactions inside `transactions` array.

### Level 2 – Multi Account Banking

- Create bank object with `bankName`, `accounts` array, `nextAccountNumber`.
- Implement functions: `createAccount`, `findAccount`, `deposit`, `withdraw`, `transfer`.
- Auto-generate account numbers.
- Prevent transfer if account does not exist or insufficient balance.
- Implement `showAllAccounts` function.

### Level 3 – Advanced Banking Logic

- Maintain transaction history for each account.
- Support account types: `savings` and `current`.
- Savings: minimum balance 1000 and 4% yearly interest.
- Current: no minimum balance and no interest.
- Implement loan feature with maximum loan = 5 times balance.
- Implement bank summary functions: `total balance` and `total loans`.

## Evaluation Criteria

Criteria	Marks
Logic Correctness	30
Validation Handling	25
Function Design	20
Transaction Tracking	15
Clean Console Output	10

## Submission Requirements

- Submit index.js file.
- Properly commented code.
- Clear console output when running node index.js.