|  |
| --- |
| **CubexO Software Solutions** |



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **NodeJS Curriculum** | | | **Days** |
|  | **Prepared by** | **Manoj Soni** |  | |
|  | **Version** | **1.1** |  | |
| 1 | **Linux**   * What is linux? * Advantages of linux * Linux Directories   Commands:  - cd  - pwd  - mkdir,  - ls  - rmdir   * Linux Files   commands:  - echo  - touch  - rm  - cp  - mv  - locate  - find  - rename  - chmod   * Linux file content   Linux editor  - Vim  - Nano  Command :  - head  - tail  - diff  - cat  - tac   * Linux Processes   Commands  - top  - kill,  - killall   * Linux Filters   Commands  - cut  - grep  - comm  - sort  - wc | | | Day 1 |
| 2 | **Git**   * What is git? * Use of git * Configuration of git * create git folder * initialize git * Staging and commits:   - init  - add  - commit  - clone  - stash  - ignore  - head  - origin master  - remote  - tags   * **Undoing Changes**   - checkout  - revert  - reset  - rm  - cherry-pic   * **Inspecting changes**   - log  - diff  - status   * **Branching and merging**   - Branch  - study merge and merge conflict  - rebase  - squash   * **Collaborating with repo**   - fetch  - pull  - push | | | Day 2-3 |
| 3 | **JavaScript**   * Introduction to javaScript​? * Javascript variable   - var  - let  - const   * JavaScript Operators * JavaScript Object * JavaScript String * JavaScript String methods * JavaScript Events * javaScript String methods * String templates * JavaScript Number and number methods * Arrays and its methods * JavaScript dates and Formats * JavaScript If Else * JavaScript Switch * JavaScript for loop , loop for in and loop for of * JavaScript While loop and break * JavaScript Scope * JavaScript Errors * JavaScript Hoisting * Strict mode * this keyword * JavaScript function definition, parameters and invocation * javaScript call, apply and bind methods * Function Clousures * JavaScript Prototype * JavaScript Classes * Inheritance * JavaScript local storage * JSON * **Asynchronous JavaScript**   - Callbacks  - Promises  - Async/Await | | | Day 4-6 |
| 4 | **Databases (PostgreSQL)**  **basic PostgreSQL:**   * Introduction to database * Environment setup * Create database * Select database * Drop database * Create table * Drop table * Schema   **Advanced PostgreSQL:**   * Constraint * joins * Alias syntax * Indexes * Views * Transactions * Sub queries | | | Day 7-8 |
| 5 | **SQL**   * **DDL( Data Definition Language)**   - Create  - Alter  - Truncate  - Rename   * **DML (Data manipulation language)**   - Insert  - Update  -Delete   * **DRL (Data retrival language)**   - Select   * **TCL (Transaction control language)**   - Commit  - Rollback  - savepoint   * **Data control language**   - Grant  - Revoke  - Audit  - Comment  -Analyse   * **SCL (Session control language)**   - Alter session  - Set roll   * Where clause * Operators And, Or and Not * Inbuilt functions   - Min  - Max  - Count  - Avg  - Sum   * Like, In and between operator * Aliases * Join (Inner, left, right, full and self join) * Union, Exist , Any and All Operator * Group By statement | | | Day 9-10 |
| 6 | Assignment on SQL | | | Day 11 |
| 7 | Develop game like Tic-Tac-Toe | | | Day 12-13 |
| 8 | Login/Signup project in JavaScript | | | Day 14 |
| 9 | Regular Expressions | | | Day 15-16 |
| 10 | Add validations to login/signup | | | Day 17-18 |
| 11 | **NodeJS**   * Introduction to nodeJS * Environment setup * Http module * Create first application using http * REPL terminal * Node package manager (NPM) * Callbacks * Event Loop * Event emitter * Buffers * Streams * File System * Global objects * Utility modules OS and Path * Web modules   - Client  - Server  - Business  - Data | | | Day 19-21 |
| 12 | **Express**   * Introduction to Express * Routing * HTTP methods   - GET  - POST  - PUT  - DELETE   * URL building * Middleware * Templating and templating engine * Static files * Form data * Cookies * Session * Authentication * RESTful APIs * Error handeling * Debugging | | | Day 22-23 |
| 13 | **Sequelize ORM**   * perform various operations like   - Create  - Read  - update  - Delete | | | Day 24-25 |