| S No | Topic  |
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| 1    | Introduction to Containerization and Docker  |
| 2    | Installing Docker                            |
|      | 1) Installing on macOS                       |
|      | 2) Installing on Windows                     |
|      | 3) Installing on Linux                       |
| 3    | Hello World in Docker                        |
|      | 1) Container                                 |
|      | 2) Image                                     |
|      | 3) Registry                                  |
|      | 4) Docker Architecture                       |
|      | 5) The Full picture                          |
| 4    | Container Manipulation Basics                |
|      | 1) Running Containers                        |
|      | 2) Publishing Ports                          |
|      | 3) Detached Mode                             |
|      | 4) Listing Containers                        |
|      | 5) Naming or Renaming Containers             |
|      | 6) Stopping or Killing a Running Container   |
|      | 7) Restarting Containers                     |
|      | 8) Creating Containers Without Running       |
|      | 9) Removing Dangling Containers              |
|      | 10) Running Containers in Interactive Mode   |
|      | 11) Executing Commands Inside a Container    |
|      | 12) Working with Executable Images           |
| 5    | Image Manipulation Basics                    |
|      | 1) Image Creation Basics                     |
|      | 2) Tagging Images                            |
|      | 3) Listing and Removing Images               |
|      | 4) Understanding the Many Layers of an Image |
|      | 5) Building NGINX from Source                |
|      | 6) Optimizing Images                         |
|      | 7) Embracing Alpine Linux                    |
|      | 8) Creating Executable Images                |
|      | 9)Sharing Your Images Online                 |
| 6    | Containerizing a JavaScript Application      |
|      | 1) Writing the Development Dockerfile        |
|      | 2) Working with Bind Mounts                  |
|      | 3) Working with Anonymous Volumes            |
|      | 4) Performing Multi-Staged Builds            |
| 7    | Network Manipulation Basics                  |
|      | 1) Network Basics                            |
|      | Creating a User-Defined Bridge               |

|   | 3) Attaching Containers from a Network                  |
|---|---|
|   | 4) Detaching Containers from a Network                  |
|   | 5) Getting Rid of Networks                              |
| 8 | Containerizing a Multi-Container JavaScript Application |
|   | 1) Setting Up the Custom Bridge Network                 |
|   | 2) Running the Database Server                          |
|   | 3) Working with Named Volumes                           |
|   | 4) Accessing Logs from a Container                      |
|   | 5) Attaching the Database Server                        |
|   | 6) Creating a Network and Attaching the Database Server |
|   | 7) Writing the Dockerfile                               |
|   | 8) Executing Commands in a Running Container            |
|   | 9) Writing Management Scripts                           |
| 9 | Composing Projects using Docker-Compose                 |
|   | 1) Compose Basics                                       |
|   | 2) Starting Services                                    |
|   | 3) Listing Services                                     |
|   | 4) Executing Commands Inside a Running Service          |
|   | 5) Accessing Logs from a Runtime Service                |
|   | 6) Stopping Services                                    |
|   | 7) Composing a Full-Stack Application                   |
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