⬚ MSN Clone Project Report

1. Project Overview

This report outlines the responsibilities and tasks assigned to **Groups** for building a fully functional **MSN-style news website** using the **MERN stack**. The project includes two main modules:

1. **User News Viewing Page**
2. **Admin Panel for Content Management**

The goal is to replicate core MSN-like features (without using any third-party news API) by allowing admin users to post and manage articles, while general users can view news by category, keyword, or detailed view.

2. Frontend Development

The frontend is built using **React.js**. Key responsibilities include:

- Designing and implementing the homepage with a responsive news grid
- Creating a **search bar**, **category filter**, and **pagination system**
- Developing reusable components such as `NewsCard`, `SearchBar`, and `NewsDetail`
- Ensuring responsive and modern UI with **Tailwind CSS** or **Bootstrap**
- Integrating API calls using **Axios**

3. Backend Development

The backend is powered by **Express.js** and **MongoDB**, and includes:

- Defining MongoDB schemas for news articles
- Building CRUD operations: `POST`, `GET`, `PUT`, and `DELETE` endpoints for news management
- Handling **image uploads**
- Implementing server-side pagination and sorting logic
- Creating secure API routes

4. Admin Panel Features

The Admin Panel is a secure interface for uploading and managing news content. Key features:

- **Admin login screen** (optional JWT session)
- Create form with fields:
  - `Headline`, `Description`, `Image`, `Category`
- View list of all articles in table format
- Edit/delete articles
- Image preview and file validation

5. UI/UX Design

UI/UX plays a key role in ensuring:

- Clear content hierarchy and clean layout
- Design consistency across pages (fonts, colors, spacing)
- Smooth transitions and hover effects
- Figma designs/mockups are shared before development