

# Backend Developer

## Backend Take Home Challenge

Welcome to the take-home challenge for the Backend Web Developer position. We are excited to see your skills and experience in action. The challenge is to build the backend functionality for a news aggregator website that pulls articles from various sources and serves them to the frontend application.

### Requirements:

1. Data aggregation and storage: Implement a backend system that fetches articles from selected data sources (choose at least 3 from the provided list) and stores them locally in a database. Ensure that the data is regularly updated from the live data sources.
2. API endpoints: Create API endpoints for the frontend application to interact with the backend. These endpoints should allow the frontend to retrieve articles based on search queries, filtering criteria (date, category, source), and user preferences (selected sources, categories, authors).

### Data Sources That Can Be Used (Choose At Least 3)

1. NewsAPI: This is a comprehensive API that allows developers to access articles from more than 70,000 news sources, including major newspapers, magazines, and blogs. The API provides access to articles in various languages and categories, and it supports search and filtering.
2. OpenNews: This API provides access to a wide range of news content from various sources, including newspapers, magazines, and blogs. It allows developers to retrieve articles based on keywords, categories, and sources.
3. NewsCred: The NewsCred API provides access to a wide range of news content from various sources, including newspapers, magazines, and blogs. The API allows developers to retrieve articles based on keywords, categories, and sources, as well as to search for articles by author, publication, and topic.
4. The Guardian: This API allows developers to access articles from The Guardian newspaper, one of the most respected news sources in the world. The API provides access to articles in various categories and supports search and filtering.
5. New York Times: This API allows developers to access articles from The New York Times, one of the most respected news sources in the world. The API provides access to articles in various categories and supports search and filtering.
6. BBC News: This API allows developers to access news from BBC News, one of the most trusted news sources in the world. It provides access to articles in various categories and supports search and filtering.
7. NewsAPI.org: This API provides access to news articles from thousands of sources, including news publications, blogs, and magazines. It allows developers to retrieve articles based on keywords, categories, and sources.

### Challenge Guidelines

1. The output expected from this challenge is a backend project using PHP Laravel.
2. Implement data fetching and storage mechanisms for the selected data sources. Ensure that the data is regularly updated from the live data sources.
3. Create API endpoints that allow the frontend application to interact with the backend and retrieve articles based on search queries, filtering criteria, and user preferences.
4. Incorporate best practices of software development, including DRY (Don't Repeat Yourself), KISS (Keep It Simple, Stupid), and SOLID (Single responsibility, Open-closed, Liskov substitution, Interface segregation, Dependency inversion) principles.

Please note that this challenge focuses exclusively on the backend development aspect of the news aggregator website.