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|  | **DEPARTMENT OF COMPUTER ENGINEERING** |

Assignment 3

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| Semester | B.E. Semester VIII – Computer Engineering |
| Subject | Social Media Analytics |
| Subject Professor In-charge | Prof. Amit Alyani |
| Academic Year | 2024-25 |

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**Title:** Analysing the hyperlink structure of medium.com  
  
**Concepts:**

**1. Introduction** Hyperlinks play a crucial role in determining a website's SEO performance and online visibility. This report analyzes the hyperlink structure of **Medium.com**, focusing on outbound and inbound links. The analysis was conducted using Python, leveraging BeautifulSoup for web scraping and SerpAPI for extracting backlinks from Google Search.

**2. Methodology**

**2.1 Extracting Outbound Links**

* The requests library was used to fetch Medium's homepage.
* BeautifulSoup parsed the HTML to extract all <a> tags with valid href attributes.
* The extracted URLs were filtered to include only external (outbound) links.

**2.2 Extracting Inbound Links**

* The **Google Search API (SerpAPI)** was used to find web pages linking to Medium.
* Search queries were crafted using keywords like "AI," "Blockchain," and "Cybersecurity."
* Results provided a list of external websites linking back to Medium.

**3. Findings**

**3.1 Outbound Links** Medium contains numerous outbound links, including:

* External references to research articles, news, and other platforms.
* Social media links (Twitter, LinkedIn, etc.).
* Affiliate or sponsored content links.

**3.2 Inbound Links**

* High-authority domains (e.g., news sites, academic blogs) frequently link to Medium.
* Articles on Medium are often referenced in discussions on AI, Web3, and technology-related forums.
* Some backlinks originate from Medium's own social media promotions.

**4. SEO and Social Media Impact**

**4.1 SEO Benefits**

* **Strong inbound links** improve Medium’s **domain authority**, boosting rankings in search engines.
* **Relevant outbound links** help in **contextual SEO**, improving credibility.
* **Frequent indexing** due to high inbound linking ensures Medium remains discoverable in search results.

**4.2 Social Media Influence**

* Medium's external links encourage content distribution, increasing social shares.
* High inbound linking from forums and blogs enhances its **engagement and reach**.
* The combination of backlinks and social media promotions boosts referral traffic.

**5. Conclusion** The hyperlink structure of Medium.com is well-optimized for SEO and social media influence. The site benefits from authoritative inbound links while maintaining a strategic outbound linking approach. These factors collectively enhance its **search visibility, credibility, and user engagement**.

**Implementation:**



