

## ***DEPARTMENT OF COMPUTER ENGINEERING***

Semester	T.E. Semester VI – Computer Engineering
Subject	Cryptography and cyber security
Subject Professor In-charge	Prof. Amit Nerurkar
Assisting Teachers	Prof. Amit Nerurkar
Laboratory	M312B

Student Name	Deep Salunkhe
Roll Number	21102A0014
TE Division	A

**Title:** One of the most famous intrusion detection system and has been known for its flexibility with different environments. You can even integrate it with Kibana and elastic cloud. PBLE-2

**Roll No:** 21102A0014

---

**Title:**

One of the most famous intrusion detection system and has been known for its flexibility with different environments. You can even integrate it with Kibana and elastic cloud. PBLE-2

**Explanation:**

Kibana and Elastic Cloud are two components of the Elastic Stack, which is a collection of open-source software products designed for search, analysis, visualization, and logging of data. Let's delve into each component in detail:

**1. Kibana:**

- Kibana is a powerful data visualization and exploration tool that works seamlessly with Elasticsearch, providing users with an interface to interact with their data.
- Key features of Kibana include:
  - Data Visualization: Kibana allows users to create various visualizations such as charts, graphs, maps, and histograms to represent their data in meaningful ways.
  - Dashboard Creation: Users can combine multiple visualizations into interactive dashboards, enabling them to monitor key metrics and trends at a glance.
  - Search and Explore: Kibana provides a search interface for querying data stored in Elasticsearch, allowing users to explore their data in real-time.
  - Advanced Analytics: Kibana supports advanced analytics features like machine learning, anomaly detection, and forecasting for gaining insights from data.
  - Plugins and Extensions: Kibana's plugin architecture allows for customization and integration with third-party tools and services, expanding its functionality.

**2. Elastic Cloud:**

**Title:** One of the most famous intrusion detection system and has been known for its flexibility with different environments. You can even integrate it with Kibana and elastic cloud. PBLE-2

**Roll No:** 21102A0014

- Elastic Cloud is a fully managed cloud service offered by Elastic, providing users with a hassle-free way to deploy, manage, and scale Elasticsearch clusters in the cloud.
- Key features of Elastic Cloud include:
  - **Managed Infrastructure:** Elastic Cloud handles the underlying infrastructure, including provisioning, scaling, monitoring, and maintenance of Elasticsearch clusters, allowing users to focus on their data and applications.
  - **Seamless Integration:** Elastic Cloud seamlessly integrates with other components of the Elastic Stack, such as Kibana, Beats, and Logstash, providing a unified platform for data ingestion, analysis, and visualization.
  - **Security and Compliance:** Elastic Cloud offers built-in security features like encryption, role-based access control (RBAC), and compliance certifications (e.g., SOC 2, HIPAA) to ensure the confidentiality, integrity, and availability of data.
  - **High Availability:** Elastic Cloud ensures high availability and fault tolerance by automatically distributing data across multiple nodes and availability zones within the cloud provider's infrastructure.
  - **Elastic Support:** Elastic Cloud subscribers benefit from access to Elastic's support services, including technical support, training resources, and community forums, for assistance with troubleshooting, optimization, and best practices.

---

### **Implementation:**

**Title:** One of the most famous intrusion detection system and has been known for its flexibility with different environments. You can even integrate it with Kibana and elastic cloud. PBLE-2

**Roll No:** 21102A0014

---

**Conclusion:**

Overall, Kibana's integration with Elasticsearch, real-time data visualization capabilities, ease of use, extensibility, scalability, and support for diverse data sources make it a compelling choice for organizations seeking to derive insights from their data effectively. While traditional analytical tools may offer similar features, Kibana's unique combination of functionality and usability sets it apart in the realm of data visualization and analytics.

**Title:** One of the most famous intrusion detection system and has been known for its flexibility with different environments. You can even integrate it with Kibana and elastic cloud. PBLE-2

**Roll No:** 21102A0014