

# CERTIFICATE

Of Completion

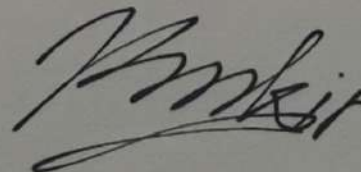
This Acknowledge That

**Muhammad Amzar Fadliatma Putra**

Attended and performed hands-on to complete in :

**Data Analytics Tools II**

30th of May - 2nd of June 2022

A handwritten signature in black ink, appearing to read 'Sida Nala Rukma Januarto'.

**Sida Nala Rukma Januarto**  
Instructor

# DATA ANALYTICS TOOLS II

## Day 1



- Logging and Log management
- Elastic Stack Overview
- Getting Started with Elasticsearch
- Installing Elasticsearch & Kibana
- Understanding API
- CRUD operations
- Querying Data
- Mappings
- Node Types

## Day 2



- Understanding Shards
- Troubleshooting Elasticsearch
- Pagination
- Sorting
- Filter
- Fuzziness
- Partial Matching
- Importing Data
- Logstash Overview
- Installing Logstash
- Logstash Integration
- Logstash Configuration
- Logstash Plugins

## Day 3



- GROK
- Logs Parsing
- Logstash Filter
- Data Enrichment
- Using Beats
- Aggregating Data
- Time Series
- Using Kibana
- Playing with Kibana
- Kibana configuration
- Analysing logs with Kibana

## Day 4



- Kibana Dashboard
- Importing Data using Data Visualizer
- Reindex
- Heap Sizing
- Stack Management
- Snapshot
- Clustering
- Availability
- Scaling Elastic Stack Node
- Securing Elastic Stack
- Working Elasticsearch with Jupyter notebook



### Hands on Labs Day 1:

- Logging with Syslog Server
- Installing Elasticsearch & Kibana
- Elasticsearch API
  - Create / Insert document
  - Read document
  - Update Document
  - Delete Document
  - Insert Document Bulk
  - Mapping Document



### Hands on Labs Day 2:

- Elasticsearch API
  - Pagination
  - Sorting
  - Filter
  - Fuzziness
  - Partial Matching
- Installing Logstash & Beats
- Logstash integration with:
  - TCP/UDP Raw Data
  - Syslog Server
  - Beats
  - JDBC Mysql Database
  - HTTP API
- Centralized logging using Elastic Stack



### Hands on Labs Day 3:

- Setup Dashboard
- Config Beats
- Logstash Filter
- Visualization and Analysis Log using Elastic Stack
  - Access log
  - Syslog/Auth log
- Create Dashboard



### Hands on Labs Day 4:

- Working with maps Visualization
- Elasticsearch API:
  - Aggregation
  - Reindex
  - Snapshot
- Setup Clustering (tbd)
- Monitoring Elastic Stack
- Securing Elastic Stack
- Working Elasticsearch with Jupyter Notebook