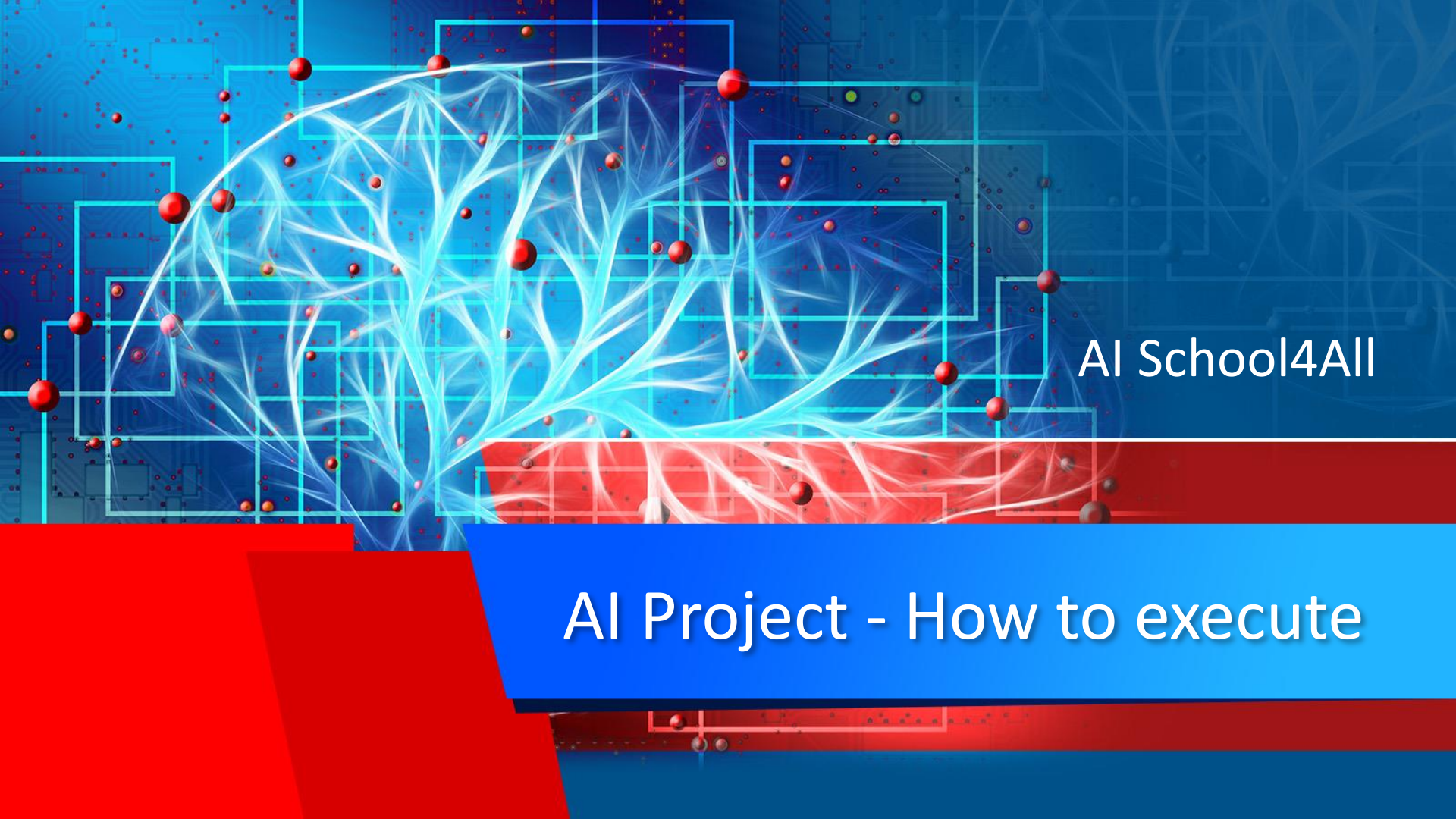
AI School4All
AI Project - How to execute

Steps for effective AI Project

Checklist

- Prepare a clear checklist addressing following key points
  - Questionaire for the user
  - Understand Problem Domain
  - Understand the Data
  - Understand Manual work done by the user
  - Understand where the user spends more time in accomplishing the task manually

Feasibility Study

- Understand the feasibility of the project where you are planning to implement ML or AI
  - Look for estimated RoI
  - Value creation by implementing ML/AI
  - Technical Possibility of implementation

Proof of Concept

- Conduct a Proof of concept with limited amount of data
  - Make sure to address the **CRITICAL requirement/component** which the End user expects to solve using ML/AI
  - All extra requirements and cosmetic changes can be addresses during actual project execution

Architecture

- Develop Architecture for the project
  - Development Architecture
  - Deployment Architecture
- Non-Functional Requirements
  - Port Opening
  - Performance requirements
  - Security Requirements
  - Cloud Requirements
  - Reusing existing components used by End user

Solution Validation

- Validate the planned solution with the End user using simple Diagrams, flowcharts and pictures
- This is the first step where your end user will visually try to understand your implementation and may provide needed corrections and suggestions in the logic you are planning to use
- Discuss effective Business Logic during this stage

Project Plan

- Data Acquisition
- Data Wrangling/Data Transformation
- Insight on Data/Feature selection/Dimension Reductions
- Training Data/Test Data
- Choosing ML/AI Algorithm
- Developing DATA MODEL
- Evaluvate Model with Test Data

Automated Deployment

- Always follow Fully Automated Deployment process
  - Deployments become much less error-prone and much more repeatable
  - Anyone in the team can deploy software
  - Saves lot of time during build cycles
  - Deployment is multiple environments possible

Smoke Test

- Smoke testing is defined as a type of software testing that determines whether the deployed build is stable or not
- Also called as "Build verification Testing" or “Confidence Testing.”
- Aim of smoke testing is to detect early major issues.
- A build includes all data files, libraries, reusable modules, engineered components that are required to implement one or more product functions

Backup and Roll Back

- Always ensure to Backup both Development code and executables
- Advisable to develop in Cloud environment so that automatic backups are available

Documentation and Logging

- Prepare documentations
  - Development Architecture document
  - Deployment Architecture document
  - Solution Validation diagrams, flowcharts
  - Source data and transformed data documents (with units used for each field attributes)
  - Comments in Code to make it understandable for any new user
  - Logging of Code execution with facility to ON/OFF the logging

Delivery and Versionising

- Solution to be delivered with clear
  - Delivery note
  - Deliverable details
  - End User Documentation
  - Version details


thanks