
DEVOPS MELA
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YAML SCRIPTS

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Data Serialization:

Data serialization is the process of converting data objects present in complex data structures into a byte stream for storage, transfer, and distribution purposes on a physical device

Example: Serialization is when reading data from databases and transferring it across the web

Some commonly used serialization formats are JSON, YAML, XML

YAML:

- YAML is a data serialization format that stands for YAML ain't Markup language
- YAML is written in simple English and is easier for humans to read and write
- YAML is its supports various data types like cases, arrays, dictionaries, lists, and scalars
- It has good support for the most popular languages like JavaScript, Python, Ruby, Java, etc
- YAML only supports spaces, and it is case sensitive as well as space sensitive
- Tabs are not accepted universally. A YAML file has .yaml extension

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Basic Syntax:

Mapping:

- The mapping syntax is **key: value**. (Note the space, it's very crucial in YAML, unlike JSON or XML)

```yaml
---

name: DevOps Mela
age:  32
location: Mumbai
```

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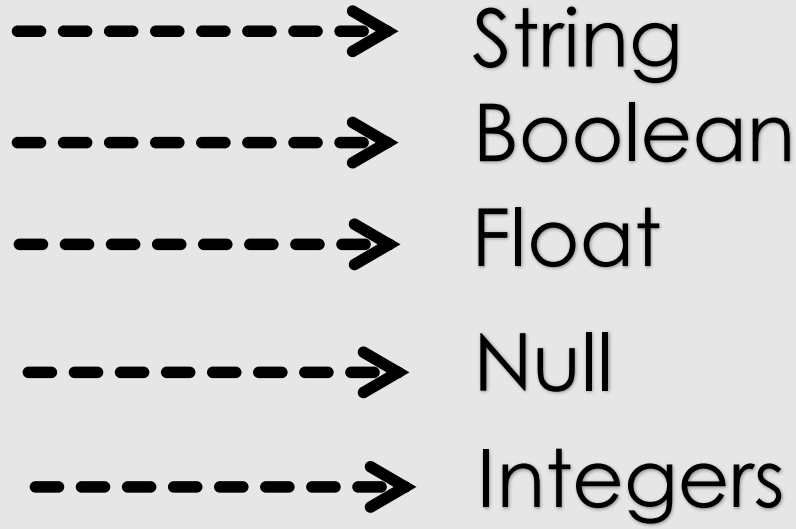
- YAML also supports data types like characters, strings, integers, floating values, and collections like arrays, lists that are constructed from basic data types

```yaml
---

NAME: "DevOps Mela"

MALE: FALSE

Amount: 120.30

Concern: NULL

AGE: 16
```



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List

```
---

- apple

- banana

- mango
```

Nested List

```
---

student: "john"
hobbies:
  - music
  - reading
  - dancing
```

Nested Dictionary

```
---

student2:
  fatherName: "Grey"
  motherName: "Winey"
  subjectDetails:
    subject1: 70
    subject2: 100
```

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CONTINUOUS INTEGRATION

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Work-flow

Visual Studio

eclipse

Visual Studio Code

- Build
- Test
- Release
- Deploy

- Merging the codes with remote repos
- Compiling source code
- Running UNIT / Automated test cases
- Publishing build artifacts

Continuous Integration

git

Azure Repos

Azure Pipelines

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CONTINUOUS DEPLOYMENT & DELIVERY

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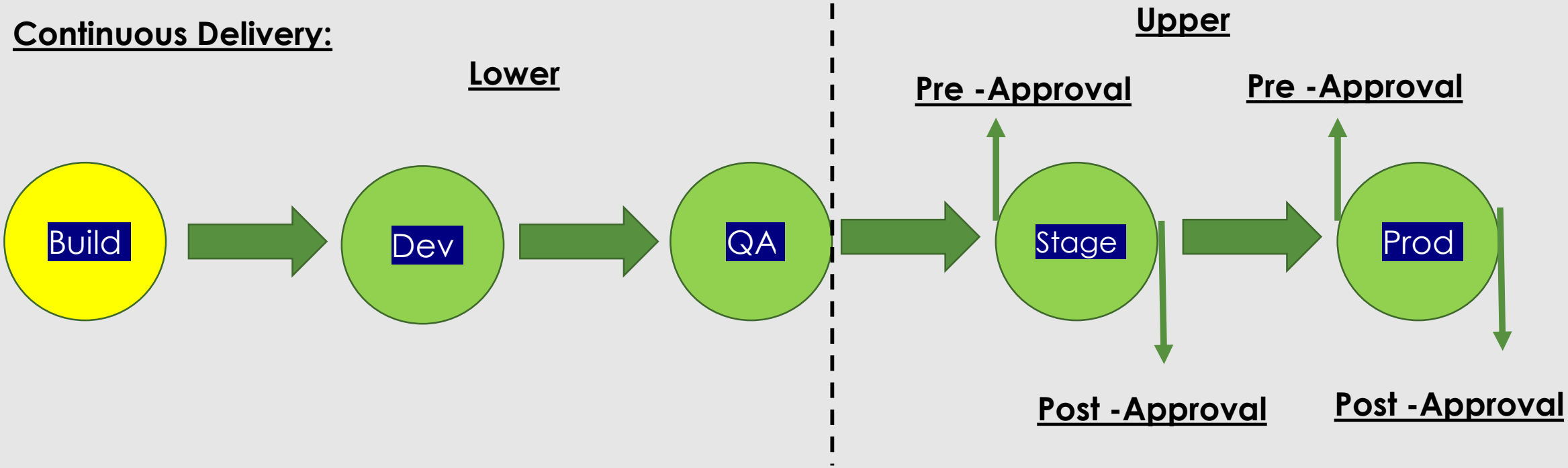
Continuous Delivery:



- Continuous delivery is an automated release process, we can deploy our application at any time by clicking a button
- With continuous delivery, you can decide to release daily, weekly, fortnightly, or whatever suits your business requirements
- With continuous delivery, codes get deployed in lower environments without manual intervention but for upper environments deployment manual approval is the must

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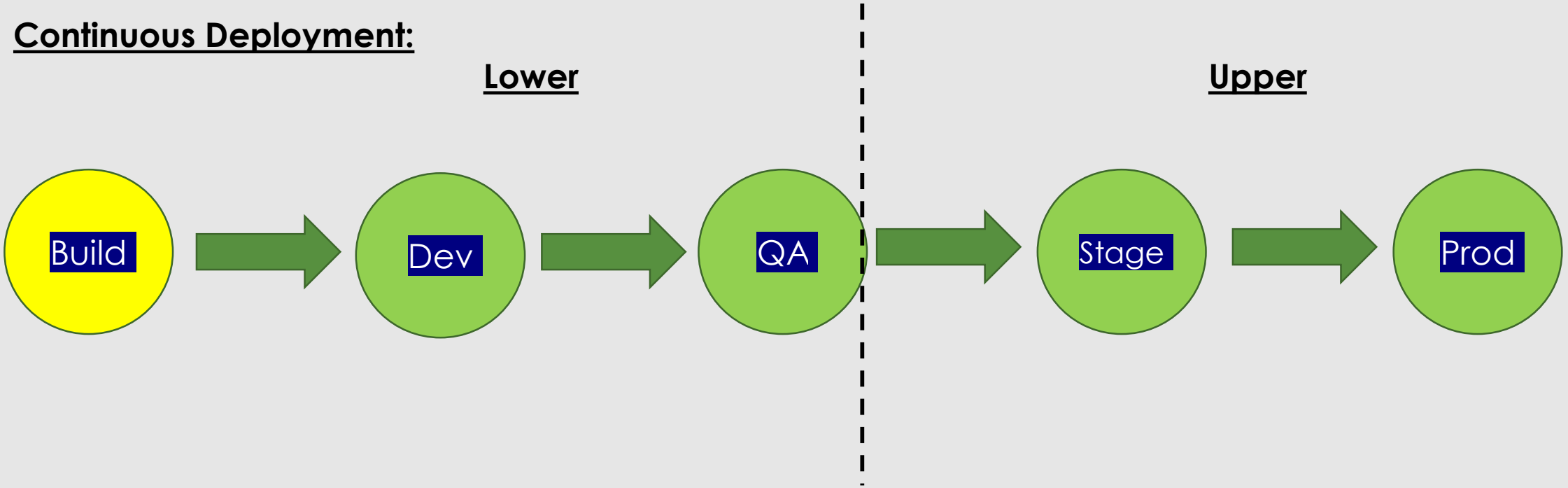
Continuous Deployment:



- Continuous deployment goes one step further than continuous delivery
- With continuous deployment, every change that passes all stages get deployed till the production environment without human intervene
- With continuous deployment, only a failed test will prevent a new change to be deployed to production
- With continuous deployment, we can completely bypass release day and accelerate the feedback loop with customers

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MAVEN

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MAVEN

- Maven, a **Yiddish word** meaning accumulator of knowledge, was built as an attempt to simplify the build processes
- Maven is a powerful project management tool that is based on **POM** (project object model)
- It is used for project build, dependency, and documentation

Helps Us with:

- Builds
- Documentation
- Reporting
- SCMs
- Releases
- Distribution

New features migration

Simplify build process

Uniform build process

(maven project can be shared by all the maven projects)

Provides project Information

(log document, cross-referenced sources, mailing list, dependency list, unit test reports etc.)

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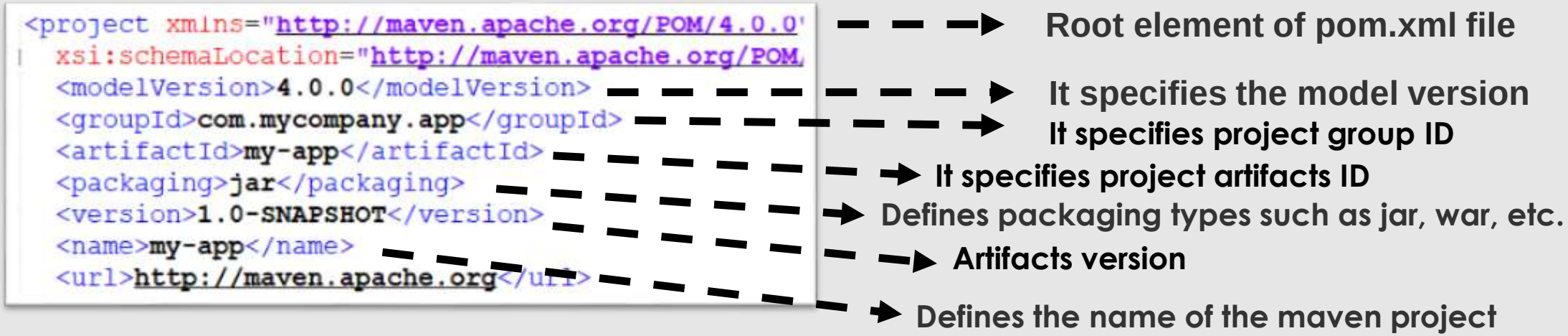
POM (project object model)

- **POM.xml** files contain project and configuration information for Maven to build the project
- The POM files have information such as project dependencies, source directory, and test source directory. plugin, goals, etc



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