Introduction to IT project management

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Time management

„IT'S NOT ENOUGH TO BE BUSY, SO ARE THE ANTS. THE QUESTION IS, WHAT ARE WE BUSY ABOUT?" – HENRY DAVID THOREAU

How to Get Projects Done on Time

What is Time Management?

Why TM is important?

Give me six hours to chop down a tree and I will spend the first four sharpening the axe.

Abraham Lincol

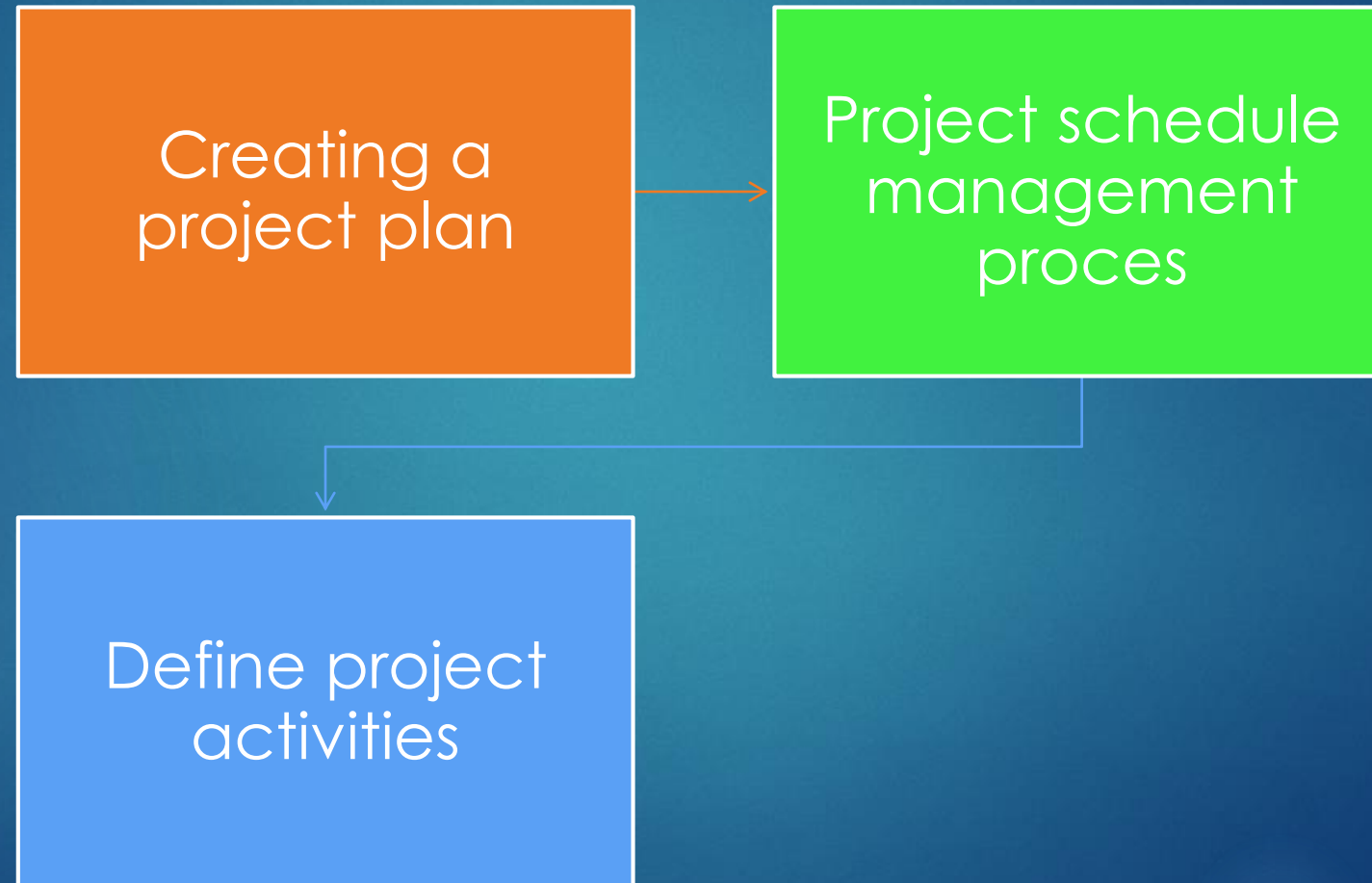# Six main processes in project time management

Creating a project plan

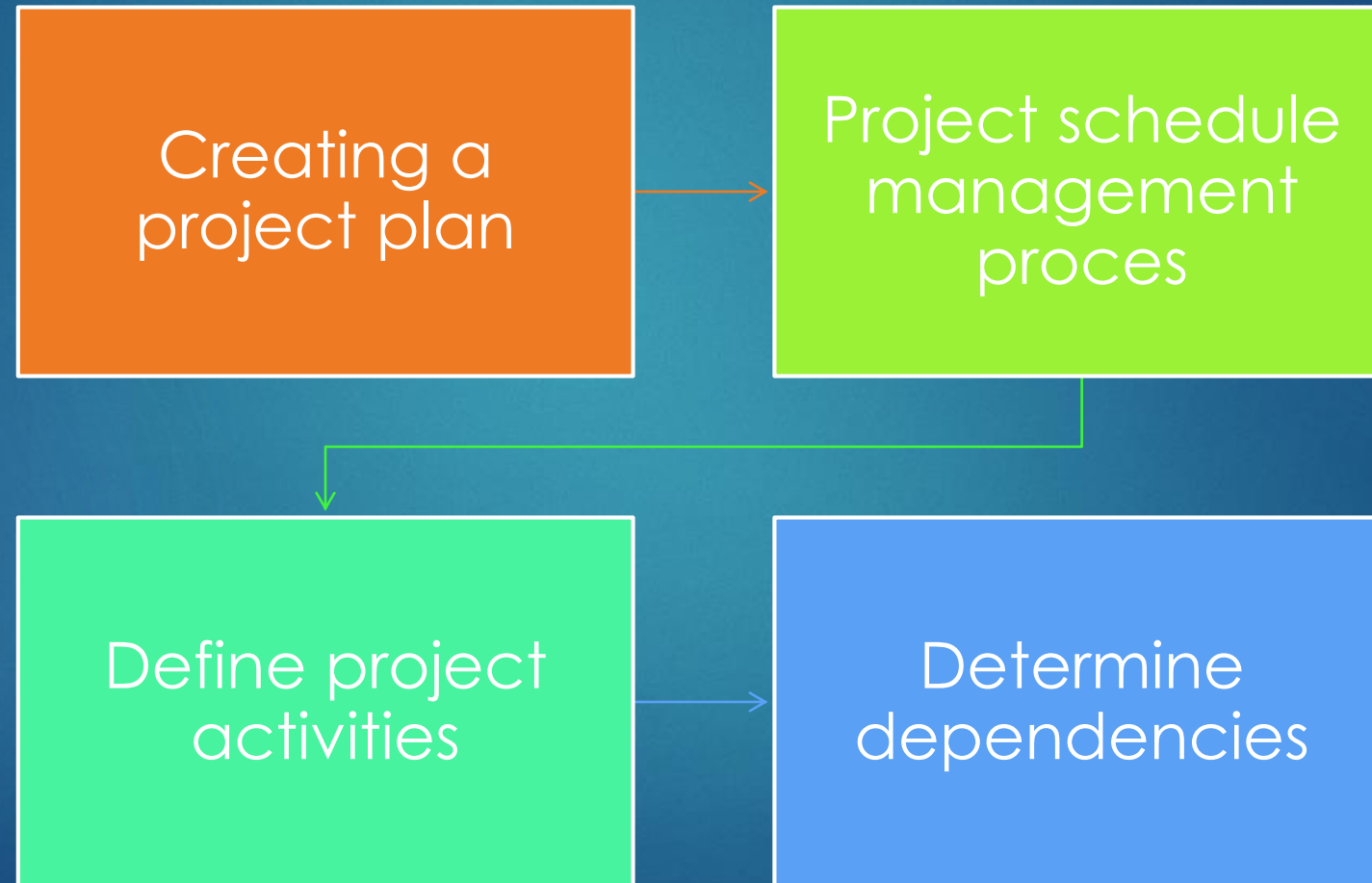# Six main processes in project time management

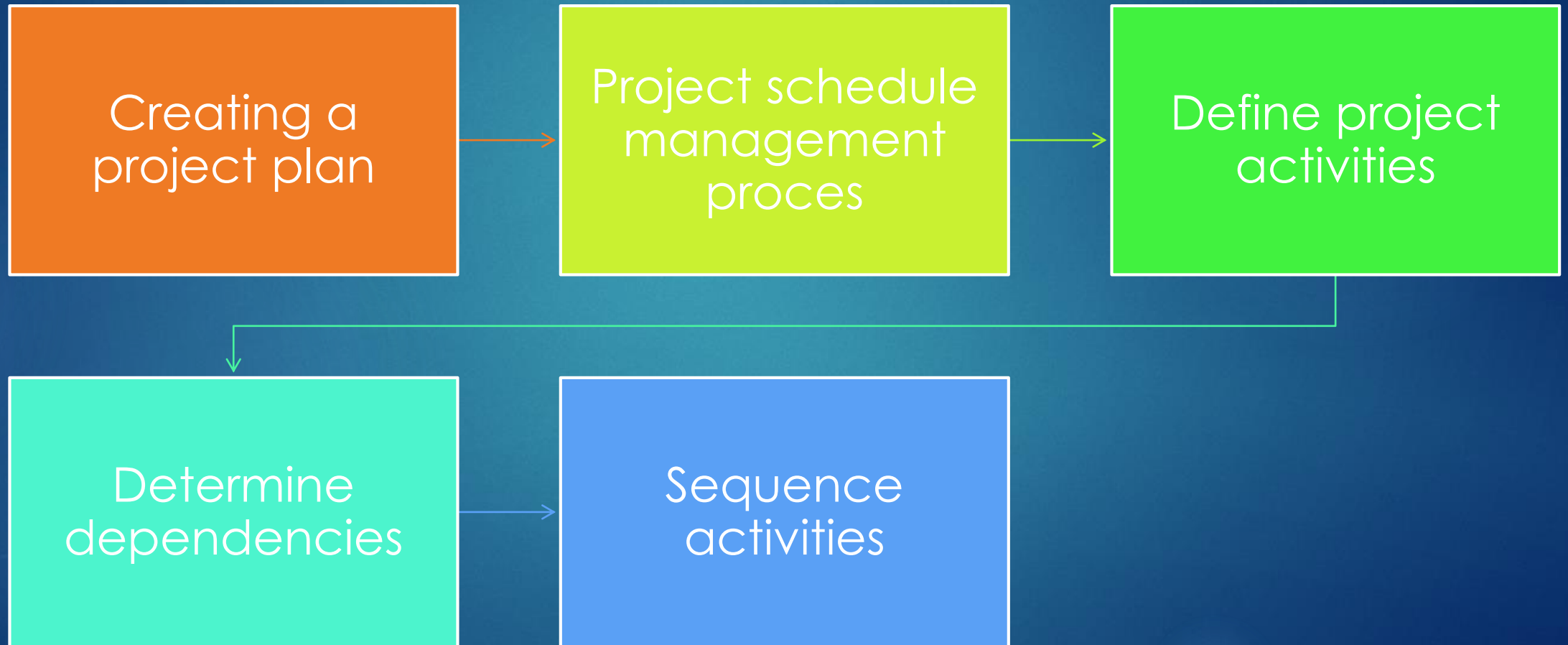Creating a project plan

Project schedule management proces

Six main processes in project time management

Creating a project plan → Project schedule management proces

Define project activities

Six main processes in project time management

Creating a project plan

Project schedule management proces

Define project activities

Determine dependencies

Six main processes in project time management

Creating a project plan → Project schedule management proces → Define project activities

Determine dependencies → Sequence activities

Six main processes in project time management

Creating a project plan → **Project schedule management proces** → **Define project activities**

Determine dependencies → **Sequenca activities** → **Estimate durations and resources**

Another approach

PMI BOOK

Six main processes in project time management

Activity definition

Define Activities

Inputs

- Scope baseline (deliverables, constraints, and assumptions).

- Enterprise environmental factors (project management information systems).

- Organizational process assets (existing guidelines and policies, lessons learned knowledge base).

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Tools

1. **Decomposition**

2. **Rolling wave planning**

3. **Expert judgement**

Define Activities

Inputs

- Scope baseline (deliverables, constraints, and assumptions).

- Enterprise environmental factors (project management information systems).

- Organizational process assets (existing guidelines and policies, lessons learned knowledge base).

Tools

1. **Decomposition**

2. **Rolling wave planning**

3. **Expert judgement**

Outputs

- **Activity list**

- **Activity attributes**

- **Milestone list**

Six main processes in project time management

Activity definition → Activity Sequencing

Sequence Activities

Inputs

- Activity List.
- Activity Attributes.
- Milestone List.
- Project Scope Statement.

Sequence Activities

Inputs

- **Activity List.**

- **Activity Attributes.**

- **Milestone List.**

- **Project Scope Statement.**

Tools

1. **Dependency determination.**

2. **Precedence diagramming method (PDM).**

3. **Applying leads and lags.**

Sequence Activities

Inputs

- Activity List.
- Activity Attributes.
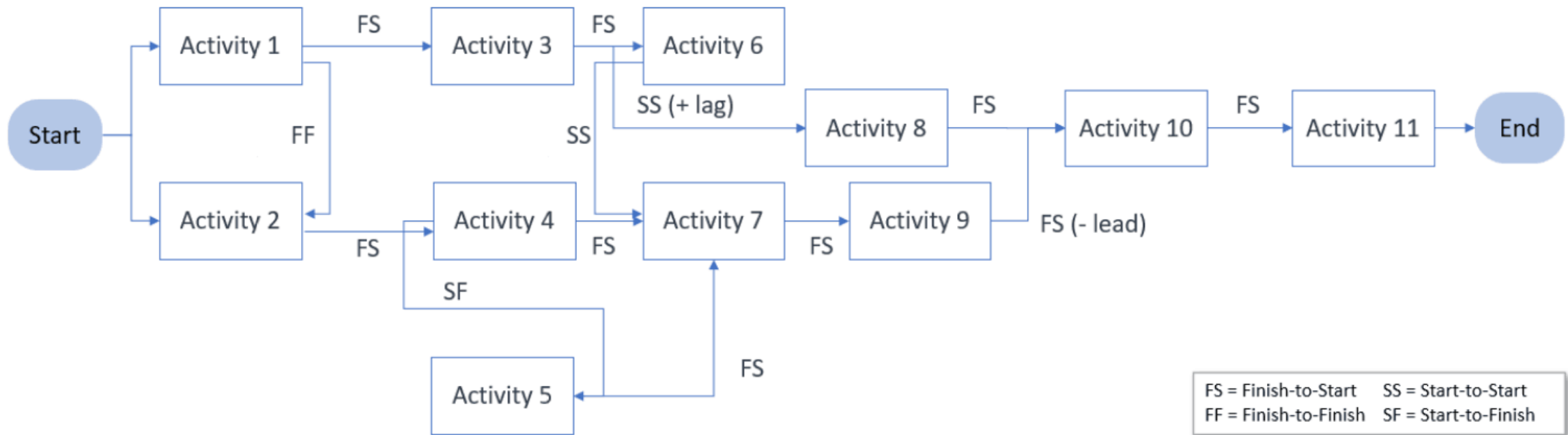- Milestone List.
- Project Scope Statement.

Tools

1. Dependency determination.
2. Precedence diagramming method (PDM).
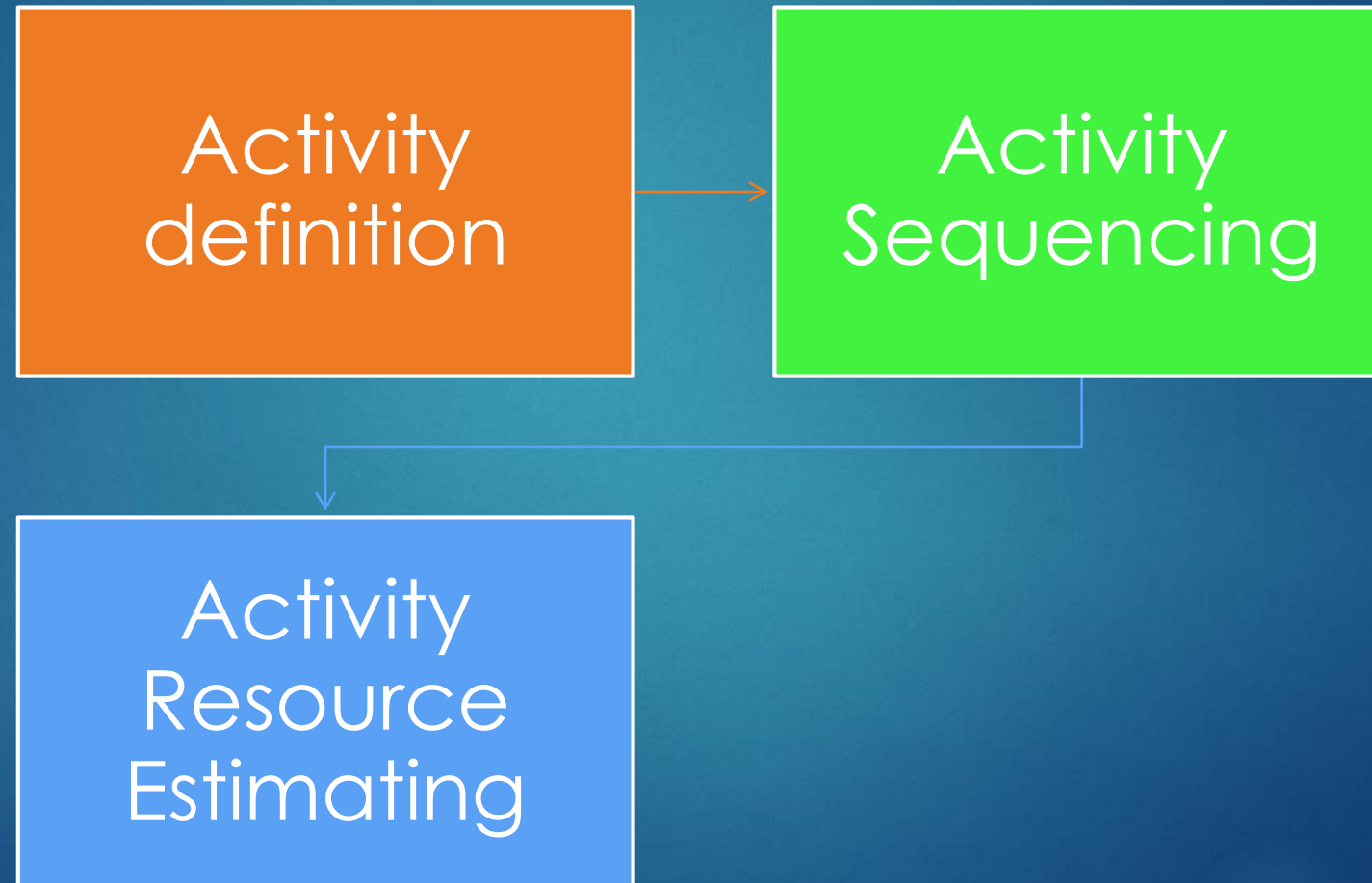3. Applying leads and lags.

Outputs

- Project Document Update
- Project Schedule Network Diagram

Project Schedule Network Diagram

Example of a Project Schedule Network Diagram

Six main processes in project time management

Activity definition → **Activity Sequencing**

Activity Resource Estimating

Activity Resource Estimating

Inputs

- **Activity List.**

- **Activity Attributes.**

- **Resource calendars.**

- **Enterprise environmental factors**

- **Organizational process assets**

Activity Resource Estimating

Inputs

- **Activity List.**

- **Activity Attributes.**

- **Resource calendars.**

- **Enterprise environmental factors**

- **Organizational process assets**

Tools

1. **expert judgment,**

2. **alternatives analysis,**

3. **published estimating data,**

4. **bottom-up estimating,**

5. **project management software**

Activity Resource Estimating

Inputs

- Activity List.

- Activity Attributes.

- Resource calendars.

- Enterprise environmental factors
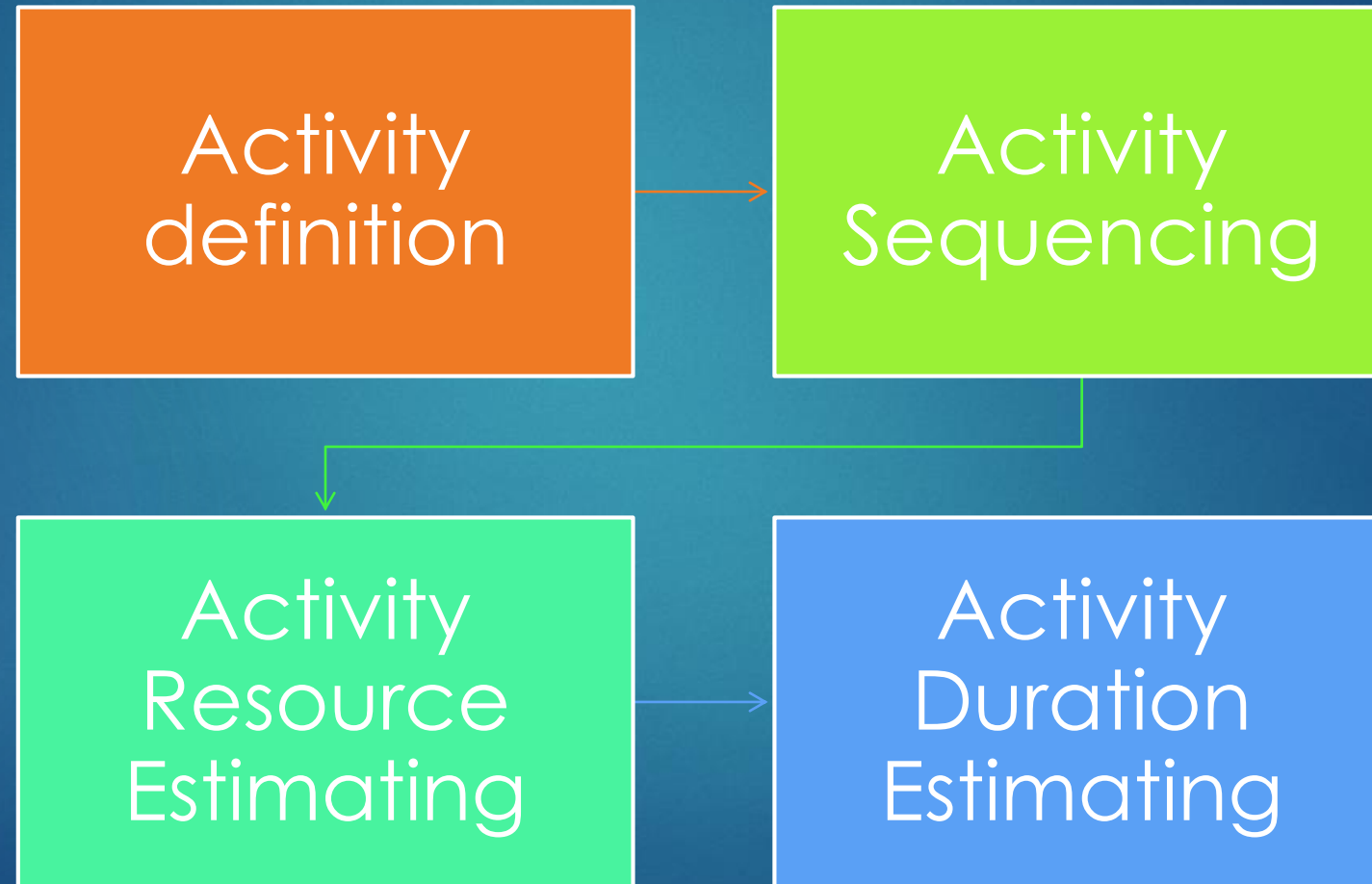
- Organizational process assets

Tools

1. expert judgment,

2. alternatives analysis,

3. published estimating data,

4. bottom-up estimating,

5. project management software

Outputs

- Activity Resource Requirements

- Resource Breakdown Structure

- Project Document Updates

Six main processes in project time management

Activity Duration Estimating

Inputs

- **Activity List.**

- **Activity Attributes.**

- **Resource calendars.**

- **Activity Resource Requirements**

Activity Duration Estimating

Inputs

- **Activity List.**

- **Activity Attributes.**

- **Resource calendars.**

- **Activity Resource Requirements**

Tools

1. **Expert judgment,**

2. **Analogous analysis,**

3. **Parametric estimating,**

4. **Three–points Estimates,**

5. **Reserve analysis**

Activity Duration Estimating

Inputs

- **Activity List.**

- **Activity Attributes.**

- **Resource calendars.**

- **Activity Resource Requirements**

Tools

1. **Expert judgment,**

2. **Alalogous analysis,**

3. **Parametric estimating,**

4. **Three–points Estimates,**

5. **Reserve analysis**

Outputs

- **Activity Duration Estimates**

- **Project Document Updates**

Six main processes in project time management

Activity definition → **Activity Sequencing** → **Activity Resource Estimating**

Activity Duration Estimating → **Schedule Development**

Schedule Development

Inputs

- **Activity list**

- **Activity attributes**

- **Project schedule network diagrams**

- **Activity resource requirements**

- **Resource calendars**

- **Activity duration estimates**

- Project scope statement

- Enterprise environmental factors

- Organizational process assets

Schedule Development

Inputs

- **Activity list**
- **Activity attributes**
- **Project schedule network diagrams**
- **Activity resource requirements**
- **Resource calendars**
- **Activity duration estimates**
- Project scope statement
- Enterprise environmental factors
- Organizational process assets

Tools

1. Schedule network analysis
   - Critical path method
   - Critical chain method
   - Resource leveling
   - What-if scenario analysis
2. Applying leads and lags
3. Schedule compression
4. Scheduling tool

Schedule Development

Inputs

- **Activity list**
- **Activity attributes**
- **Project schedule network diagrams**
- **Activity resource requirements**
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- **Activity duration estimates**
- Project scope statement
- Enterprise environmental factors
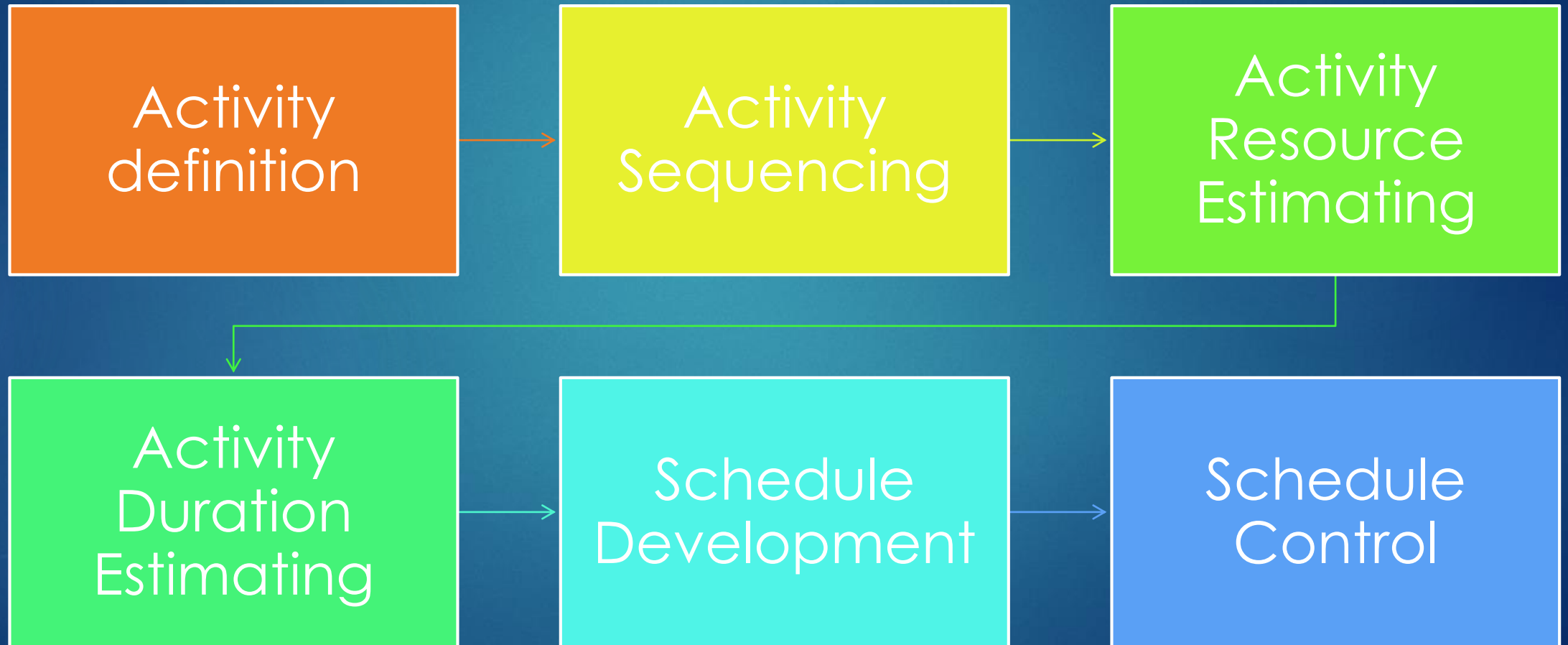- Organizational process assets

Tools

1. Schedule network analysis
   - Critical path method
   - Critical chain method
   - Resource leveling
   - What-if scenario analysis
2. Applying leads and lags
3. Schedule compression
4. Scheduling tool

Outputs

- **Schedule baseline**
- **Project document updates**

Six main processes in project time management

Schedule Control

Inputs

1. Project management plan
   - Schedule management plan
   - Schedule baseline
   - Scope baseline
   - Performance measurement baseline
2. Project documents
   - Lessons learned register
   - Project calendars
   - Project schedule
   - Resource calendars
   - Schedule data
3. Work performance data
4. Organizational process assets

Tools

1. Data analysis
   - Earned value analysis
   - Iteration burndown chart
   - Performance reviews
   - Trend analysis
   - Variance analysis
   - What-if scenario analysis
2. Critical path method
3. Project management information system
4. Resource optimization
5. Leads and lags
6. Schedule compression

Outputs

1. Work performance information
2. Schedule forecasts
3. Change requests
4. Project management plan updates
   - Schedule management plan
   - Schedule baseline
   - Cost baseline
   - Performance measurement baseline
5. Project documents updates
   - Assumption log
   - Basis of estimates
   - Lessons learned register
   - Project schedule
   - Resource calendars
   - Risk register
   - Schedule data