PROJECT INTEGRATION MANAGEMENT

Develop Project Charter

Inputs

- .1 Business documents
 - · Business case
 - · Benefits management plan
- .2 Agreements
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
 - · Brainstorming
 - · Focus groups Interviews
- .3 Interpersonal and team skills
 - · Conflict management
 - · Facilitation
- · Meeting management
- .4 Meetings

Outputs

- .1 Project charter
- .2 Assumption log

Develop Project Management Plan

Inputs

- .1 Project charter
- .2 Outputs from other processes
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
 - Brainstorming
 - Checklists
 - · Focus groups
- Interviews
- .3 Interpersonal and team skills
 - Conflict management
 - Facilitation
- · Meeting management
- .4 Meetings

Outputs

.1 Project management plan

Direct and Manage Project Work

Inputs

- .1 Project management plan
- Any component
- .2 Project documents
 - Change log
 - · Lessons learned register
 - Milestone list
 - · Project communications
 - · Project schedule
 - · Requirements traceability matrix
 - · Risk register
 - Risk report
- .3 Approved change requests
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Project management information system
- .3 Meetings

- .1 Deliverables
- .2 Work performance data
- .3 Issue log
- .4 Change requests
- .5 Project management plan updates
 - · Any component
- .6 Project documents updates
- · Activity list
- · Assumption log
- · Lessons learned register
- · Requirements documentation
- Risk register Stakeholder register
- .7 Organizational process assets updates

Manage Project Knowledge

Inputs

- .1 Project management plan
 - All components
- .2 Project documents
- Lessons learned register
- Project team assignments
- Resource breakdown structure
- · Source selection criteria
- · Stakeholder register
- .3 Deliverables
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Knowledge management
- .3 Information management
- .4 Interpersonal and team skills
 - · Active listening
 - Facilitation
 - Leadership
 - Networking
 - · Political awareness

Outputs

- .1 Lessons learned register
- .2 Project management plan updates
- Any component
- .3 Organizational process assets updates

Monitor and Control Project Work

Inputs

- .1 Project management plan
 - · Any component
- .2 Project documents
 - Assumption log
 - Basis of estimates
 - Basis of estimate
 Cost forecasts
 - Issue log
 - · Lessons learned register
 - Milestone list
 - · Quality reports
 - · Risk register
 - Risk report
 - · Schedule forecasts
- .3 Work performance information
- .4 Agreements
- .5 Enterprise environmental factors
- .6 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data analysis
 - Alternatives analysis
 - · Cost-benefit analysis
 - Earned value analysis
 - · Root cause analysis
 - Trend analysis
- Variance analysis
 3 Decision making
- .4 Meetings

Outputs

- .1 Work performance reports
- .2 Change requests
- .3 Project management plan updates
 - Any component
- .4 Project do cuments updates
 - Cost forecasts
 - Issue log
 - · Lessons learned register
 - · Risk register
 - Schedule fore casts

Perform Integrated Change Control

Inputs

- .1 Project management plan
 - Change management plan
 - Configuration management plan
 - Scope baseline
 - Schedule baseline
 - Cost baseline
- .2 Project documents
 - Basis of estimates
 - Requirements traceability matrix
 - Risk report
- .3 Work performance reports
- .4 Change requests
- .5 Enterprise environmental factors
- .6 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Change control tools
- .3 Data analysis
 - Alternatives analysis
 - Cost-benefit analysis
- .4 Decision making
 - Voting
 - · Autocratic decision making
- Multicriteria de cision analysis
- .5 Meetings

- .1 Approved change requests
- .2 Project management plan updates
 - Any component
- .3 Project documents updates
- Change log

Close Project or Phase

Inputs

- .1 Project charter
- .2 Project management plan
 - All components
- .3 Project documents
 - · Assumption log
 - · Basis of estimates
 - · Change log
 - Issue log
 - Lessons learned register
 - · Milestone list
 - · Project communications
 - Quality control measurements
 - Quality reports
 - Requirements documentation
 - Risk register
 - Risk report
- .4 Accepted deliverables
- .5 Business documents
 - · Business case
 - Benefits management plan
- .6 Agreements
- .7 Procurement documentation
- .8 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data analysis
 - Document analysis
 - · Regression analysis
 - · Trend analysis
 - · Variance analysis
- .3 Meetings

Outputs

- .1 Project documents updates
 - Lessons learned register
- .2 Final product, service, or result transition
- .3 Final report
- .4 Organizational process assets updates

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PROJECT SCOPE MANAGEMENT

Plan Scope Management

Inputs

- .1 Project charter
- .2 Project management plan
 - Quality management plan
 - · Project life cycle description
 - · Development approach
- .3 Enterprise environmental
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data analysis
- Alternatives analysis
- .3 Meetings

- .1 Scope management plan
- .2 Requirements management plan

Collect Requirements

Inputs

- .1 Project charter
- .2 Project management plan
 - Scope management plan
 - Requirements management plan
 - Stakeholder engagement plan
- .3 Project documents
 - Assumption log
 - · Lessons learned register
 - Stakeholder register
- .4 Business documents
 - · Business case
- .5 Agreements
- .6 Enterprise environmental factors
- .7 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
 - Brainstorming
 - · Interviews
 - · Focus groups
 - Questionnaires and surveys
- Benchmarking
- .3 Data analysis
 - · Document analysis
- .4 Decision making
 - Voting
 - Multicriteria decision analysis
- .5 Data representation
 - Affinity diagrams
 - · Mind mapping
- .6 Interpersonal and team skills
 - · Nominal group technique
 - · Observation/conversation
 - · Facilitation
- .7 Context diagram
- .8 Prototypes

Outputs

- .1 Requirements documentation
- .2 Requirements traceability matrix

激

Define Scope

Inputs

- .1 Project charter
- .2 Project management plan
 - Scope management plan
- .3 Project documents
 - Assumption log
 - Requirements documentation
 - · Risk register
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data analysis
- Alternatives analysis
- .3 Decision making
 - Multicriteria decision analysis
- .4 Interpersonal and team skills
 - Facilitation
- .5 Product analysis

Outputs

- .1 Project scope statement
- .2 Project documents updates
 - · Assumption log
 - Requirements
 - documentation
 - Requirements traceability matrix
 - Stakeholder register

Create WBS

Inputs

- .1 Project management plan
 - Scope management plan
- .2 Project documents
 - Project scope statement
 - Requirements
 documentation
- .3 Enterprise environmental
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Decomposition

- .1 Scope baseline
- .2 Project do cuments updates
 - Assumption log
 - Requirements documentation

Validate Scope

Inputs

- .1 Project management plan
 - Scope management plan
 - Requirements management plan
 - Scope baseline
- .2 Project documents
 - · Lessons learned register
 - · Quality reports
 - Requirements documentation
 - Requirements traceability matrix
- .3 Verified deliverables
- .4 Work performance data

Tools & Techniques

- .1 Inspection
- .2 Decision making
 - Voting

Outputs

- .1 Accepted deliverables
- .2 Work performance information
- .3 Change requests
- .4 Project document updates
 - · Lessons learned register
 - Requirements documentation
 - Requirements traceability matrix

Control Scope

- · · · · ·

Inputs

- .1 Project management plan
- Scope management plan
- Requirements management plan
- Change management plan
- Configuration management
 nlan
- Scope baseline
- Performance measurement baseline
- .2 Project documents
 - · Lessons learned register
 - Requirements documentation
 - Requirements traceability matrix
- .3 Work performance data
- .4 Organizational process assets

Tools & Techniques

- .1 Data analysis
 - · Variance analysis
 - · Trend analysis

Outputs

- .1 Work performance information
- .2 Change requests
- .3 Project management plan updates
 - Scope management plan
 - Scope baseline
 - Schedule baseline
 - · Cost baseline
 - Performance measurement baseline
- .4 Project documents updates
 - · Lessons learned register
 - Requirements documentation
 - Requirements traceability matrix

PROJECT SCHEDULE MANAGEMENT

Plan Schedule Management

Inputs

- .1 Project charter
- .2 Project management plan
 - Scope management plan
 - · Development approach
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data analysis
- .3 Meetings

Outputs

.1 Schedule management plan

Define Activities

Inputs

- .1 Project management plan
 - Schedule management plan
 - Scope baseline
- .2 Enterprise environmental factors
- .3 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Decomposition
- .3 Rolling wave planning
- .4 Meetings

Outputs

- .1 Activity list
- .2 Activity attributes
- .3 Milestone list
- .4 Change requests
- .5 Project management plan updates
 - Schedule baseline
 - Cost baseline

Sequence Activities

Inputs

- .1 Project management plan
 - · Schedule management plan
 - · Scope baseline
- .2 Project documents
 - · Activity attributes
 - Activity list
 - · Assumption log
 - · Milestone list
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Precedence diagramming method
- .2 Dependency determination and integration
- .3 Leads and lags
- .4 Project management information system

Outputs

- .1 Project schedule network diagrams
- .2 Project documents updates
 - Activity attributes
 - Activity list
 - · Assumption log
 - Milestone list

Estimate Activity Durations

Inputs

- .1 Project management plan
 - · Schedule management plan
 - Scope baseline
- .2 Project documents
 - · Activity attributes
 - · Activity list
 - · Assumption log
 - · Lessons learned register
 - · Milestone list
 - · Project team assignments
 - Resource breakdown structure
 - · Resource calendars
 - · Resource requirements
 - · Risk register
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Analogous estimating
- .3 Parametric estimating
- .4 Three-point estimating
- .5 Bottom-up estimating
- .6 Data analysis
 - · Alternatives analysis
 - Reserve analysis
- .7 Decision making
- .8 Meetings

- .1 Duration estimates
- .2 Basis of estimates
- .3 Project documents updates
 - · Activity attributes
 - Assumption log
 - · Lessons learned register

Develop Schedule

Inputs

- .1 Project management plan
 - · Schedule management plan
 - Scope baseline
- .2 Project documents
 - · Activity attributes
 - · Activity list
 - · Assumption log
 - Basis of estimates
 - · Duration estimates
 - · Lessons learned register
 - · Milestone list
 - Project schedule network diagrams
 - · Project team assignments
 - Resource calendars
 - · Resource requirements
 - Risk register
- .3 Agreements
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Schedule network analysis
- .2 Critical path method
- .3 Resource optimization
- .4 Data analysis
 - · What-if scenario analysis
 - Simulation
- .5 Leads and lags
- .6 Schedule compression
- .7 Project management information system
- .8 Agile release planning

Outputs

- .1 Schedule baseline
- .2 Project schedule
- .3 Schedule data
- .4 Project calendars
- .5 Change requests
- .6 Project management plan updates
 - Schedule management plan
 - · Cost baseline
- .7 Project documents updates
 - · Activity attributes
 - · Assumption log
 - · Duration estimates
 - · Lessons learned register
 - Resource requirements
 - · Risk register

Control Schedule

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 & Techniques

- .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
- .6 Leads and lags
- .7 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

PROJECT COST MANAGEMENT

Plan Cost Management

Inputs

- .1 Project charter
- .2 Project management plan
 - · Schedule management plan
 - Risk management plan
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data analysis
- .3 Meetings

Outputs

.1 Cost management plan

Estimate Costs

Inputs

- .1 Project management plan
 - · Cost management plan
 - · Quality management plan
 - Scope baseline
- .2 Project documents
 - · Lessons learned register
 - · Project schedule
 - · Resources requirements
 - · Risk register
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Analogous estimating
- .3 Parametric estimating
- .4 Bottom-up estimating
- .5 Three-point estimating
- .6 Data analysis
 - · Alternatives analysis
 - · Reserve analysis
 - · Cost of quality
- .7 Project management information system
- .8 Decision making
 - Voting

Outputs

- .1 Cost estimates
- .2 Basis of estimates
- .3 Project documents updates
 - · Assumption log
 - · Lessons learned register
 - · Risk register

Determine Budget

Inputs

- .1 Project management plan
 - Cost management plan
 - · Resource management plan
 - · Scope baseline
- .2 Project documents
 - · Basis of estimates
 - · Cost estimates
 - Project schedule
 - Risk register
- .3 Business documents
 - · Business case
 - · Benefits management plan
- .4 Agreements
- .5 Enterprise environmental factors
- .6 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Cost aggregation
- .3 Data analysis
- Reserve analysis
- .4 Historical information review
- .5 Funding limit reconciliation
- .6 Financing

- .1 Cost baseline
- .2 Project funding requirements
- .3 Project documents updates
 - · Cost estimates
 - · Project schedule
 - · Risk register

Control Costs

Inputs

- .1 Project management plan
 - · Cost management plan
 - · Cost baseline
 - Performance measurement baseline
- .2 Project documents
 - · Lessons learned register
- .3 Project funding requirements
- .4 Work performance data
- .5 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data analysis
 - · Earned value analysis
 - · Variance analysis
 - · Trend analysis
 - · Reserve analysis
- .3 To-complete performance index
- .4 Project management information system

Outputs

- .1 Work performance information
- .2 Cost forecasts
- .3 Change requests
- .4 Project management plan updates
 - · Cost management plan
 - · Cost baseline
 - Performance me asure ment base line
- .5 Project documents updates
 - · Assumption log
 - · Basis of estimates
 - Cost estimates
 - · Lessons learned register
 - · Risk register

PROJECT QUALITY MANAGEMENT

Plan Quality Management

Inputs

- .1 Project charter
- .2 Project management plan
 - Requirements management plan
 - Risk management plan
 - Stakeholder engagement plan
 - · Scope baseline
- .3 Project documents
 - · Assumption log
 - Requirements
 - do cumentation
 Requirements traceability
 - Requirements traceability matrix
 - · Risk register
 - · Stakeholder register
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
 - BenchmarkingBrainstorming
 - Interviews
- .3 Data analysis
 - Cost-benefit analysis
 - Cost of quality
- .4 Decision making
 - Multicriteria decision analysis
- .5 Data representation
 - Flowcharts
 - Logical data model
 - · Matrix diagrams
 - · Mind mapping
- .6 Test and inspection planning
- .7 Meetings

- .1 Quality management plan
- .2 Quality metrics
- .3 Project management plan updates
 - Risk management plan
 - Scope baseline
- .4 Project documents updates
 - · Lessons learned register
 - Requirements traceability matrix
 - · Risk register
 - · Stakeholder register

Manage Quality

Inputs

- .1 Project management plan
 - · Quality management plan
- .2 Project documents
 - · Lessons learned register
 - Quality control measurements
 - · Quality metrics
 - · Risk report
- .3 Organizational process assets

Tools & Techniques

- .1 Data gathering
- Checklists
- .2 Data analysis
- Alternatives analysis
- · Document analysis
- Process analysis
- · Root cause analysis
- .3 Decision making
 - Multicriteria decision analysis
- .4 Data representation
 - · Affinity diagrams
 - · Cause-and-effect diagrams
 - · Flowcharts
 - · Histograms
 - Matrix diagrams
 - Scatter diagrams
- .5 Audits
- .6 Design for X
- .7 Problem solving
- .8 Quality improvement methods

Outputs

- .1 Quality reports
- .2 Test and evaluation documents
- .3 Change requests
- .4 Project management plan updates
 - · Quality management plan
 - Scope baseline
 - · Schedule baseline
 - Cost baseline
- .5 Project documents updates
 - Issue log
 - Lessons learned register
 - Risk register

Control Quality

Inputs

- .1 Project management plan
 - · Quality management plan
- .2 Project documents
 - · Lessons learned register
 - · Quality metrics
 - Test and evaluation documents
- .3 Approved change requests
- .4 Deliverables
- .5 Work performance data
- .6 Enterprise environmental factors
- .7 Organizational process assets

Tools & Techniques

- .1 Data gathering
 - Checklists
 - · Check sheets
 - · Statistical sampling
 - · Questionnaires and surveys
- .2 Data analysis
 - Performance reviews
 - Root cause analysis
- .3 Inspection
- .4 Testing/product evaluations
- .5 Data representation
 - Cause-and-effect diagrams
 - Control charts
 - Histogram
 - Scatter diagrams
- .6 Meetings

Outputs

- .1 Quality control measurements
- .2 Verified deliverables
- .3 Work performance information
- .4 Change requests
- .5 Project management plan updates
 - Quality management plan
- .6 Project documents updates
 - Issue log
 - Lessons learned register
 - · Risk register
 - Test and evaluation documents

PROJECT RESOURCE MANAGEMENT

Plan Resource Management

Inputs

- .1 Project charter
- .2 Project management plan
 - Quality management plan
 - Scope baseline
- .3 Project documents
 - · Project schedule
 - Requirements documentation
 - · Risk register
 - Stakeholder register
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data representation
 - · Hierarchical charts
 - Responsibility assignment matrix
 - Text-oriented formats
- .3 Organizational theory
- .4 Meetings

Outputs

- .1 Resource management plan
- .2 Team charter
- .3 Project documents updates
 - Assumption log
 - · Risk register

Estimate Activity Resources

Inputs

- .1 Project management plan
 - Resource management plan
 - Scope baseline
- .2 Project documents
 - Activity attributes
 - · Activity list
 - Assumption log
 - Cost estimates
 - · Resource calendars
 - · Risk register
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Bottom-up estimating
- .3 Analogous estimating
- .4 Parametric estimating
- .5 Data analysis
 - Alternatives analysis
- .6 Project management information system
- .7 Meetings

- .1 Resource requirements
- .2 Basis of estimates
- .3 Resource breakdown structure
- .4 Project documents updates
 - · Activity attributes
 - Assumption log
 - · Lessons learned register

Acquire Resources

Inputs

- .1 Project management plan
 - Resource management plan
 - Procurement management plan
 - Cost baseline
- .2 Project documents
 - · Project schedule
 - · Resource calendars
 - · Resource requirements
 - · Stakeholder register
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Decision making
 - Multicriteria de cision analysis
- .2 Interpersonal and team skills
 - Negotiation
- .3 Pre-assignment
- .4 Virtual teams

Outputs

- .1 Physical resource assignments
- .2 Project team assignments
- .3 Resource calendars
- .4 Change requests
- .5 Project management plan updates
 - Resource management plan
 - Cost baseline
- .6 Project documents updates
 - · Lessons learned register
 - Project schedule
 - Resource breakdown structure
 - Resource requirements
 - · Risk register
 - Stakeholder register
- .7 Enterprise environmental factors updates
- .8 Organizational process assets updates

Develop Team

Inputs

- .1 Project management plan
 - Resource management plan
- .2 Project documents
 - · Lessons learned register
 - · Project schedule
 - · Project team assignments
 - Resource calendars
 - · Team charter
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Colocation
- .2 Virtual teams
- .3 Communication technology
- .4 Interpersonal and team skills
 - · Conflict management
 - Influencing
 - Motivation
 - Negotiation
 - Te am building
- .5 Recognition and rewards
- .6 Training
- .7 Individual and team assessments
- .8 Meetings

- Team performance
 assessments
- .2 Change requests
- .3 Project management plan updates
 - Resource management plan
- .4 Project documents updates
 - · Lessons learned register
 - · Project schedule
 - Project team assignments
 - · Resource calendars
 - · Team charter
- .5 Enterprise environmental factors updates
- .6 Organizational process assets updates

Manage Team

Inputs

- .1 Project management plan
 - Resource management plan
- .2 Project documents
 - Issue log
 - · Lessons learned register
 - Project team assignments
 - · Team charter
- .3 Work performance reports
- .4 Team performance assessments
- .5 Enterprise environmental factors
- .6 Organizational process assets

Tools & Techniques

- .1 Interpersonal and team skills
 - Conflict management
 - · Decision making
 - · Emotional intelligence
 - Influencing
 - Leadership
- .2 Project management information system

Outputs

- .1 Change requests
- .2 Project management plan updates
 - Resource management plan
 - Schedule baseline
 - · Cost baseline
- .3 Project documents updates
 - Issue log
 - Lessons learned register
 - Project team assignments
- .4 Enterprise environmental factors updates

Control Resources

Inputs

- .1 Project management plan
 - Resource management plan
- .2 Project documents
 - Issue log
 - Lessons learned register
 - Physical resource assignments
 - Project schedule
 - Resource breakdown structure
 - · Resource requirements
 - Risk register
- .3 Work performance data
- .4 Agreements
- .5 Organizational process assets

Tools & Techniques

- .1 Data analysis
 - Alternatives analysis
 - · Cost-benefit analysis
 - Performance reviews
 - · Trend analysis
- .2 Problem solving
- .3 Interpersonal and team skills
 - Negotiation
 - Influencing
- .4 Project management information system

Outputs

- .1 Work performance information
- .2 Change requests
- .3 Project management plan updates
 - Resource management plan
 - Schedule baseline
 - · Cost baseline
- .4 Project documents updates
 - Assumption log
 - Issue log
 - Lessons learned register
 - Physical resource assignments
 - Resource breakdown structure
 - · Risk register

PROJECT COMMUNICATIONS MANAGEMENT

Plan Communications Management

Inputs

- .1 Project charter
- .2 Project management plan
 - · Resource management plan
 - Stakeholder engagement plan
- .3 Project documents
 - Requirements
 - documentation
- Stakeholder register
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Communication requirements analysis
- .3 Communication technology
- .4 Communication models
- .5 Communication methods
- .6 Interpersonal and team skills
 - Communication styles assessment
 - Political awareness
- Cultural awareness
- .7 Data representation
 - Stakeholder engagement assessment matrix
- .8 Meetings

Outputs

- Communications management plan
- .2 Project management plan updates
 - Stakeholder engagement plan
- .3 Project do cuments updates
 - · Project schedule
 - · Stakeholder register

Manage Communications

Inputs

- .1 Project management plan
 - · Resource management plan
 - Communications management plan
 - Stakeholder engagement plan
- .2 Project documents
 - Change log
 - Issue log
 - · Lessons learned register
 - · Quality report
 - · Risk report
 - Stakeholder register
- .3 Work performance reports
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Communication technology
- .2 Communication methods
- .3 Communication skills
 - · Communication competence
 - Feedback
 - Nonverbal
 - Presentations
- .4 Project management information system
- .5 Project reporting
- .6 Interpersonal and team skills
 - Active listening
 - Conflict management
 - Cultural awareness
 - · Meeting management
 - Networking
 - · Political awareness
- .7 Meetings

- .1 Project communications
- .2 Project management plan updates
 - Communications
 - management plan
 - Stakeholder engagement nlan
- .3 Project do cuments updates
 - Issue log
 - · Lessons learned register
 - · Project schedule
 - · Risk register
 - Stakeholder register
- .4 Organizational process assets updates

Monitor Communications

Inputs

- .1 Project management plan
 - Resource management plan
 - Communications management plan
 - Stakeholder engagement
 nlan
- .2 Project documents
 - Issue log
 - · Lessons learned register
 - · Project communications
- .3 Work performance data
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Project management information system
- .3 Data analysis
 - Stakeholder engagement assessment matrix
- .4 Interpersonal and team skills
- Observation/conversation
- .5 Meetings

Outputs

- .1 Work performance information
- .2 Change requests
- .3 Project management plan updates
 - Communications management plan
 - Stakeholder engagement plan
- .4 Project documents updates
 - Issue log
 - Lessons learned register
 - · Stakeholder register

PROJECT RISK MANAGEMENT

Plan Risk Management

Inputs

- .1 Project charter
- .2 Project management plan
 - · All components
- .3 Project documents
 - Stakeholder register
- .4 Enterprise environmental
- .5 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data analysis
- Stakeholder analysis
- .3 Meetings

Outputs

.1 Risk management plan

Identify Risks

Inputs

- .1 Project management plan
 - Requirements management plan
 - · Schedule management plan
 - Cost management plan
 - · Quality management plan
 - · Resource management plan
 - · Risk management plan
 - Scope baseline
 - · Schedule baseline
 - · Cost baseline
- .2 Project documents
 - Assumption log
 - · Cost estimates
 - · Duration estimates
 - Issue log
 - · Lessons learned register
 - Requirements documentation
 - · Resource requirements
 - · Stakeholder register
- .3 Agreements
- .4 Procurement documentation
- .5 Enterprise environmental factors
- .6 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
 - · Brainstorming
 - · Checklists
- Interviews
- .3 Data analysis
 - Root cause analysis
 - Assumption and constraint analysis
 - SW0T analysis
 - · Document analysis
- .4 Interpersonal and team skills
 - Facilitation
- .5 Prompt lists
- .6 Meetings

Outputs

- .1 Risk register
- .2 Risk report
- .3 Project do cuments updates
 - · Assumption log
 - Issue log
 - · Lessons learned register

3D 4

Perform Qualitative Risk Analysis

Inputs

- .1 Project management plan
 - Risk management plan
- .2 Project documents
 - · Assumption log
 - Risk register
 - Stakeholder register
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
 - Interviews
- .3 Data analysis
 - Risk data quality assessment
 - Risk probability and impact assessment
 - Assessment of other risk parameters
- .4 Interpersonal and team skills
 - Facilitation
- .5 Risk categorization
- .6 Data representation
 - Probability and impact matrix
 - Hierarchical charts
- .7 Meetings

- .1 Project do cuments updates
 - · Assumption log
 - Issue log
 - · Risk register
 - · Risk report

Perform Quantitative Risk Analysis

Inputs

- .1 Project management plan
 - Risk management plan
 - Scope baseline
 - Schedule baseline
 - · Cost baseline
- .2 Project documents
 - · Assumption log
 - · Basis of estimates
 - · Cost estimates
 - · Cost forecasts
 - · Duration estimates
 - Milestone list
 - · Resource requirements
 - · Risk register
 - Risk report
 - · Schedule forecasts
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
- Interviews
- .3 Interpersonal and team skills
 - Facilitation
- .4 Representations of uncertainty
- .5 Data analysis
 - Simulations
 - · Sensitivity analysis
 - · Decision tree analysis
 - Influence diagrams

Outputs

- .1 Project documents updates
 - · Risk report

Plan Risk Responses

Inputs

- .1 Project management plan
 - Resource management plan
 - Risk management plan
 - Cost baseline
- .2 Project documents
 - · Lessons learned register
 - · Project schedule
 - · Project team assignments
 - · Resource calendars
 - Risk register
 - · Risk report
 - Stakeholder register
- .3 Enterprise environmental factors
- A Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
 - Interviews
- .3 Interpersonal and team skills
 - Facilitation
- .4 Strategies for threats
- .5 Strategies for opportunities
- .6 Contingent response strategies
- .7 Strategies for overall project risk
- .8 Data analysis
 - · Alternatives analysis
 - Cost-be nefit a nalysis
- .9 Decision making
 - Multicriteria de cision analysis

Outputs

- .1 Change requests
- .2 Project management plan updates
 - Schedule management plan
 - · Cost management plan
 - · Quality management plan
 - Resource management plan
 - Procurement management plan
 - Scope baseline
 - · Schedule baseline
 - Cost baseline
- .3 Project documents updates
 - · Assumption log
 - Cost forecasts
 - · Lessons learned register
 - · Project schedule
 - · Project team assignments
 - · Risk register
 - Risk report

Implement Risk Responses

Inputs

- .1 Project management plan
 - Risk management plan
- .2 Project documents
 - Lessons learned register
 - Risk registerRisk report
- .3 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Interpersonal and team skills
 - Influencing
- .3 Project management information system

- .1 Change requests
- .2 Project documents updates
 - Issue log
 - Lessons learned register
 - Project team assignments
 - Risk register
 - Risk report

Monitor Risks

Inputs

- .1 Project management plan
 - Risk management plan
- .2 Project documents
 - Issue log
 - · Lessons learned register
 - · Risk register
 - Risk report
- .3 Work performance data
- .4 Work performance reports

Tools & Techniques

- .1 Data analysis
 - Technical performance analysis
 - · Reserve analysis
- .2 Audits
- .3 Meetings

Outputs

- .1 Work performance information
- .2 Change requests
- .3 Project management plan updates
 - Any component
- .4 Project do cuments updates
 - Assumption log
 - · Issue log
 - · Lessons learned register
 - · Risk register
 - · Risk report
- .5 Organizational process assets updates

PROJECT PROCUREMENT MANAGEMENT

Plan Procurement Management

Inputs

- .1 Project charter
- .2 Business documents
 - · Business case
 - · Benefits management plan
- .3 Project management plan
 - Scope management plan
 - Quality management plan
 - · Resource management plan
 - · Scope baseline
- .4 Project documents
 - · Milestone list
 - · Project team assignments
 - Requirements documentation
 - Requirements traceability matrix
 - · Resource requirements
 - · Risk register
 - Stakeholder register
- .5 Enterprise environmental factors
- .6 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
 - · Market research
- .3 Data analysis
 - · Make-or-buy analysis
- .4 Source selection analysis
- .5 Meetings

- .1 Procurement management
- .2 Procurement strategy
- .3 Bid documents
- .4 Procurement statement of work
- .5 Source selection criteria
- .6 Make-or-buy decisions
- .7 Independent cost estimates
- .8 Change requests
- .9 Project do cuments updates
 - · Lessons learned register
 - · Milestone list
 - Requirements documentation
 - Requirements traceability matrix
 - Risk register
 - Stakeholder register
- .10 Organizational process assets updates

Conduct Procurements

Inputs

- .1 Project management plan
 - · Scope management plan
 - Requirements management plan
 - Communications management plan
 - · Risk management plan
 - Procurement management plan
 - Configuration management plan
 - · Cost baseline
- .2 Project documents
 - · Lessons learned register
 - · Project schedule
 - Requirements documentation
 - · Risk register
 - · Stakeholder register
- .3 Procurement documentation
- .4 Seller proposals
- .5 Enterprise environmental factors
- .6 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Advertising
- .3 Bidder conferences
- .4 Data analysis
 - · Proposal evaluation
- .5 Interpersonal and team skills
 - Negotiation

Outputs

- .1 Selected sellers
- .2 Agreements
- .3 Change requests
- .4 Project management plan updates
 - Requirements management plan
 - · Quality management plan
 - Communications management plan
 - Risk management plan
 - Procurement management plan
 - · Scope baseline
 - · Schedule baseline
 - · Cost baseline
- .5 Project documents updates
 - · Lessons learned register
 - Requirements documentation
 - Requirements traceability matrix
 - · Resource calendars
 - · Risk register
 - · Stakeholder register
- .6 Organizational process assets updates

Control Procurements

Inputs

- .1 Project management plan
 - Requirements management plan
 - · Risk management plan
 - Procurement management plan
 - Change management plan
 - Schedule baseline
- .2 Project documents
 - · Assumption log
 - · Lessons learned register
 - · Milestone list
 - · Quality reports
 - Requirements documentation
 - Requirements traceability matrix
 - · Risk register
 - Stakeholder register
- .3 Agreements
- .4 Procurement documentation
- .5 Approved change requests
- .6 Work performance data
- .7 Enterprise environmental factors
- .8 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Claims administration
- .3 Data analysis
 - · Performance reviews
 - · Earned value analysis
 - · Trend analysis
- .4 Inspection
- .5 Audits

- .1 Closed procurements
- .2 Work performance information
- .3 Procurement documentation updates
- .4 Change requests
- .5 Project management plan updates
 - · Risk management plan
 - Procurement management plan
 - Schedule baseline
 - · Cost baseline
- .6 Project documents updates
 - · Lessons learned register
 - · Resource requirements
 - Requirements traceability matrix
 - · Risk register
 - · Stakeholder register
- .7 Organizational process assets updates

PROJECT STAKEHOLDER MANAGEMENT

Identify Stakeholders

Inputs

- .1 Project charter
- .2 Business documents
 - · Business case
 - · Benefits management plan
- .3 Project management plan
 - Communications management plan
 - Stakeholder engagement plan
- .4 Project documents
 - Change log
 - Issue log
 - Requirements documentation
- .5 Agreements
- .6 Enterprise environmental factors
- .7 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
 - · Questionnaires and surveys
 - · Brainstorming
- .3 Data analysis
 - Stakeholder analysis
 - · Document analysis
- .4 Data representation
 - Stakeholder mapping/ representation
- .5 Meetings

Outputs

- .1 Stakeholder register
- .2 Change requests
- .3 Project management plan updates
 - Requirements management plan
 - Communications management plan
 - Risk management plan
 - Stakeholder engagement plan
- .4 Project do cuments updates
 - Assumption log
 - Issue log
 - Risk register

Plan Stakeholder Engagement

Inputs

- .1 Project charter
- .2 Project management plan
 - · Resource management plan
 - Communications management plan
 - · Risk management plan
- .3 Project documents
 - Assumption log
 - · Change log
 - Issue log
 - · Project schedule
 - Risk register
 - · Stakeholder register
- .4 Agreements
- .5 Enterprise environmental factors
- .6 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data gathering
- Benchmarking
- .3 Data analysis
 - Assumption and constraint analysis
 - · Root cause analysis
- .4 Decision making
 - Prioritization/ranking
- .5 Data representation
 - Mind mapping
 - Stakeholder engagement assessment matrix
- .6 Meetings

Outputs

.1 Stakeholder engagement plan

Manage Stakeholder Engagement

Inputs

- .1 Project management plan
 - Communications management plan
 - Risk management plan
 - Stakeholder engagement plan
 - · Change management plan
- .2 Project documents
 - Change log
 - Issue log
 - · Lessons learned register
 - · Stakeholder register
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Communication skills
 - Feedback
- .3 Interpersonal and team skills
 - · Conflict management
 - · Cultural awareness
 - · Negotiation
 - Observation/conversation
 - · Political awareness
- .4 Ground rules
- .5 Meetings

Outputs

- .1 Change requests
- .2 Project management plan updates
 - Communications management plan
 - Stakeholder engagement plan
- .3 Project documents updates
 - Change log
 - Issue log
 - · Lessons learned register
 - Stakeholder register

Monitor Stakeholder Engagement

Inputs

- .1 Project management plan
 - · Resource management plan
 - Communications management plan
 - Stakeholder engagement plan
- .2 Project documents
 - Issue log
 - · Lessons learned register
 - · Project communications
 - · Risk register
 - Stakeholder register
- .3 Work performance data
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Data analysis
 - · Alternatives analysis
 - Root cause analysis
 - Stakeholder analysis
- .2 Decision making
 - Multicriteria decision analysis
 - Voting
- .3 Data representation
- Stakeholder engagement assessment matrix
- .4 Communication skills
 - Feedback
 - · Presentations
- .5 Interpersonal and team skills
 - · Active listening
 - · Cultural awareness
 - Leadership
 - Networking
 - Political awareness
- .6 Meetings

- .1 Work performance information
- .2 Change requests
- .3 Project management plan updates
 - Resource management plan
 - Communications management plan
 - Stakeholder engagement
 plan
- .4 Project documents updates
 - Issue log
 - · Lessons learned register
 - · Risk register
 - Stakeholder register