Glossary: PMP Exam Prep (2021 Update)

100-point method: A prioritization method which requires each stakeholder to distribute their 100 points, as votes, across available work items.

5 Whys technique: A technique to find the root cause for a particular problem by repeatedly asking the question "Why?" It is an iterative and interrogative technique which is aimed at finding the cause and effect of a particular problem.

80/20 rule: See Pareto principle.

A3: Either a process for solving a particular problem, or a general way of looking at things, in which the pertinent information is limited to what will fit on a single sheet of paper. Named for the standard A3-size sheet of paper.

AC: See actual cost.

acceptance criteria:

1. A set of conditions that are to be met before deliverables are accepted. See also deliverable.

2. A formal list of predefined requirements or conditions that should be satisfied in order to mark the deliverable as complete.

acceptance test-driven development: Abbreviated as ATDD, a development method where team members with different perspectives collaborate early on to develop acceptance test criteria that capture the requirements of work items.

activity: A distinct, scheduled portion of work performed during the course of a project.

activity code: An alphanumeric value assigned to each activity that enables classifying, sorting, and filtering. See also activity identifier and activity label.

activity identifier: A unique alphanumeric value assigned to an activity and used to differentiate that activity from other activities. See also activity code and activity label.

activity label: A phrase that names and describes an activity. See also activity code and activity identifier.

actual cost: Abbreviated as AC, the realized cost incurred for the work performed on an activity during a specific time-period. See also budget at completion, earned value, estimate at completion, estimate to complete, and planned value.

adaptation: Changes done in product or process as soon as the need surfaces, to reduce the practical problems or any deviations that can give rise to risks or issues.

adaptive planning: A technique in which high-level planning is done at the beginning. As a project progresses, detailed planning is done considering the latest changes. This allows for accommodation of changes in the requirements, even late into the development process.

affinity estimate: A technique used for conducting high-level estimations for work items. Work items are compared and grouped together based on their size, then a high-level relative estimation is done for each of the work items. This is simple yet fast.

Agile: A term used to describe a mindset of values and principles aimed at flexibility, communication, collaboration, and simplicity based on short iterations and continuous feedback from the customer as set forth in the Agile Manifesto. Agile is an iterative and incremental approach to deliver values to the customer early and continuously. See also Agile Manifesto.

Agile coach: An individual with knowledge and experience in agile who can train, mentor, facilitate, and guide organizations and teams through their agile transformation.

Agile life cycle: An approach that is both iterative and incremental to develop and refine work items and deliver frequently.

Agile Manifesto: Published in 2001 by a group of 17 software developers as the Manifesto for Agile Software Development, the document that lays out the original values and principles that led to the initiation of Agile development methods such as Scrum and Kanban.

Agile mindset: Thinking and practicing the core Agile values and principles in spirit, as laid out in the Agile Manifesto, to continuously deliver value to the customer and adapt as needed.

Agile practitioner: Also known as an Agilist, someone who collaborates with cross-functional teams in line with Agile techniques and concepts.

Agile principles: The twelve principles for project delivery enumerated in the Manifesto for Agile Software Development. See also Agile Manifesto.

Agile Unified Process: A simplified process framework for developing business application software using agile techniques and concepts that are modeled on the Rational Unified Process (RUP).

Agilest: See Agile practitioner.

analogous estimating: A technique for estimating the duration or cost of an activity or a project using historical data from a similar activity or project. See also bottom-up estimating, parametric estimating, program evaluation and review technique, and three-point estimating.

anti-pattern: A known, flawed pattern of work that is not advisable.

apportioned effort: An activity where effort is allotted proportionately across certain discrete efforts and not divisible into discrete efforts. Apportioned effort is one of three earned value management types of activities used to measure work performance. See also discrete effort and level of effort.

artifacts: The tangible by-products, specific to a project, that represent the work and value, helping bring transparency. Artifacts form a basis for inspection and adaptation. Examples are product vision, product backlog, project (product or service) increment, and design document.

assumption: A factor in the planning process considered to be true, real, or certain, without proof or demonstration.

ATDD: See acceptance test-driven development.

audit: A structured and independent process used to assess and verify if the activities in a project conform to the standard policies, process, and procedures defined at the organizational and project levels.

automated code quality analysis: Scripted analysis of code to ensure functionality, spot vulnerabilities, and style consistency, which assumes greater significance when working collaboratively on code.

BAC: See budget at completion.

backlog: See product backlog.

backlog grooming: See backlog refinement.

backlog refinement: Also known as backlog grooming, the progressive elaboration of project requirements or the ongoing activity in which the team collaboratively reviews, updates, and writes requirements to satisfy the need of the customer request.

backward pass: A critical path method technique for calculating the late start and late finish dates by working backward through the schedule model from the project end date. See also critical path method and forward pass.

baseline: The approved version of a work product that can be changed using formal change control procedures and is used as the basis for comparison to actual results. See also cost baseline, performance measurement baseline, schedule baseline, and scope baseline.

BCR: See benefit cost ratio.

BDD: See behavior-driven development.

behavior-driven development: An Agile test-first methodology that focuses on the actual behavior of a work item from the end user's perspective.

benefit cost ratio: Also known as BCR, an indicator used in cost benefit analysis to present the comparison between the proposed costs and expected benefits of a proposed project. Proposed benefit is divided by proposed cost to derive BCR. If a project has a BCR greater than 1.0, then it is considered advisable.

blended Agile: The combined use of two or more Agile frameworks, methods, elements, or practices, as opposed to a hybrid Agile approach, which employs some traditional predictive elements.

blocker: See impediment.

bottom-up estimating: A method of estimating project duration or cost by aggregating the estimates of the lower-level components of the work breakdown structure.

BRD: See business requirements document.

broken comb: Refers to a person with various depths of specialization in multiple skills required by the team. Also known as Paint Drip. See also T-shaped and I-shaped.

budget at completion: Abbreviated as BAC, the sum of all budgets established for the work to be performed. See also actual cost, earned value, estimate at completion, estimate to complete, and planned value.

burndown chart: A chart that graphically conveys the work remaining relative to the time remaining in the timebox.

burnup chart: A graphical representation of the work completed toward the release of a product.

business requirements document: A list of all requirements for a specific project.

cadence: A rhythm of execution. See also timebox.

cause-and-effect diagram: Also known as a fishbone diagram or Ishikawa diagram, a visual tool that helps identify, sort, and display possible causes of a specific problem or quality characteristic.

caves and common: Collaborative working spaces for the team. Caves would be an area for team members to work alone or in isolation. Common is an area for working in groups and collaborating.

CFD: See cumulative flow diagram.

change control: A process whereby modifications to documents, deliverables, or baselines associated with a project are identified, documented, approved, or rejected. See also change control board and change control system.

change control board: A formally chartered group responsible for reviewing, evaluating, approving, delaying, or rejecting changes to the project, and for recording and communicating such decisions. See also change control and change control system.

change control system: A set of procedures that describes how modifications to project deliverables and documentation are managed and controlled. See also change control and change control board.

change request: A formal proposal to modify any document, deliverable, or baseline.

CI: See continuous integration.

coarse-grained requirements: A set of requirements defined at a high level. See also fine-grained requirements.

code of accounts: A numbering system used to uniquely identify each component of the work breakdown structure.

collective code ownership: A project acceleration and collaboration technique whereby any team member is authorized to modify any project work product or deliverable, thus emphasizing team-wide ownership and accountability.

collocated team: A team where project team members work from the same location, mostly in the same room, close to each other. It helps in real-time interactions.

communications management plan: A component of the project, program, or portfolio management plan that describes how, when, and by whom information will be administered and disseminated. See also project management plan.

complex user story: A fundamentally large or big work item that cannot be further decomposed into smaller subparts to create multiple independent simple stories.

compound user story: Also known as an epic, a large user story which comprises multiple shorter user stories; a big chunk of work that can be decomposed into smaller subparts as features or user stories.

configuration management system: A collection of procedures used to track project artifacts and monitor and control changes to these artifacts.

constrained optimization: A project selection method which uses mathematical algorithms for large projects that require complex and comprehensive calculations.

constraint: A limiting factor that affects the execution of a project, program, portfolio, or process.

contingency plan: A document describing actions that the project team can take if predetermined trigger conditions occur.

contingency reserve: Time or money allocated in the schedule or cost baseline for known risks with active response strategies. See also management reserve and project budget.

continuous delivery: Delivering small increments of work to customers quickly and often making use of the automation technology.

continuous integration: Abbreviated as CI, a practice in which each team member's work product is frequently integrated and validated by one another. Typically, teams configure CI to include compilation, source control integration, and unit test execution.

control account: A management control point where scope, budget, actual cost, and schedule are integrated and compared to earned value for performance measurement.

control chart: A visual representation that systematically plots the readings of a parameter of a process or product that is being inspected.

COQ: See cost of quality.

corrective action: An intentional activity that realigns the performance of the project work with the project management plan. See also preventive action.

cost baseline: The approved version of work package cost estimates and contingency reserve that can be changed using formal change control procedures. Used as the basis for comparison to actual results. See also baseline, performance measurement baseline, schedule baseline, and scope baseline.

cost management plan: A component of a project or program management plan that describes how costs will be planned, structured, and controlled. See also project management plan.

cost of quality: Abbreviated as COQ, a method used to determine where and what amount of an organization's resources are being used for doing things right the first time. Also calculates the resources used for rectifying things that are not done right the first time.

cost performance index: Abbreviated as CPI, a measure of the cost efficiency of budgeted resources expressed as the ratio of earned value to actual cost. See also schedule performance index.

cost variance: Abbreviated at CV, the amount of budget deficit or surplus at a given point in time, expressed as the difference between the earned value and the actual cost. See also schedule variance.

CPI: See cost performance index.

crashing: A schedule compression technique used to shorten the schedule duration for the least incremental cost by adding resources. See also fast tracking and schedule compression.

critical chain method: A schedule method that allows the project team to place buffers on any project schedule path to account for limited resources and project uncertainties.

critical path: The sequence of activities that represents the longest path through a project, which determines the shortest possible duration. See also critical path activity and critical path method.

critical path activity: Any activity on the critical path in a project schedule. See also critical path and critical path method.

critical path method: A method used to estimate the minimum project duration and determine the amount of scheduling flexibility on the logical network paths within the schedule model. See also critical path and critical path activity.

cross-functional team: A team that includes practitioners with all the skills necessary to deliver valuable product increments.

Crystal family of methodologies: A collection of lightweight agile software development methods focused on adaptability toward a particular circumstance.

cumulative flow diagram: Abbreviated as CFD, an area chart that depicts the quantity of work in a given state, showing arrivals, time in queue, quantity in queue, and departure.

CV: See cost variance.

cycle time: A measure of the time elapsed from the actual start of work on a work item (story, task, bug, or support incident) up to the time it is ready for delivery. Cycle time is a measure of process capability.

DAD: See Disciplined Agile Delivery.

Daily Scrum: Also known as a daily standup, a short, daily team meeting to review progress, announce intentions for the day, and share any difficulties encountered or expected.

data date: A point in time when the status of the project is recorded.

decision tree analysis: A diagramming and calculation technique for evaluating the implications of a chain of multiple options in the presence of uncertainty.

decomposition: A technique used for dividing and subdividing the project scope and deliverables into smaller, more manageable parts.

defect repair: An intentional activity to modify a nonconforming product or product component.

definition of done: Abbreviated as DoD, a team's shared understanding about all the criteria required to be met so that a deliverable can be considered ready for customer use. Includes the acceptance criteria, quality parameters, and nonfunctional requirements to be met.

definition of ready: Abbreviated as DoR, a team's checklist for a user-centric requirement that has just enough information for the team to begin working on it.

deliverable: Any unique and verifiable product, result, or capability to perform a service that is produced to complete a process, phase, or project.

DevOps: A collection of practices for creating a smooth flow of delivery by improving collaboration between the development and operations staff.

Disciplined Agile Delivery: Abbreviated as DAD, a process decision framework that enables simplified process decisions around incremental and iterative solution delivery.

discrete effort: An activity that can be planned and measured and that yields a specific output. Discrete effort is one of three earned value management types of activities used to measure work performance. See also apportioned effort and level of effort.

distributed team: Also know as a remote team or virtual team, a project team which has team members spread across different geographic locations and working on the same project from different locations. Team members work for a common project goal and are often connected using the latest collaboration tools.

DoD: See definition of done.

DoR: See definition of ready.

dot voting: A quick and simple method for collaborative decisions. The decision or option which gets maximum dots is considered the team’s decision.

double loop learning: A process that challenges underlying values and assumptions in order to better elaborate root causes and devise improved countermeasures, rather than focusing only on symptoms.

Dreyfus model: A model for skill acquisition. According to this model, every individual goes through five stages during the process of skill acquisition: novice, advanced beginner, competent, proficient, and expert.

DSDM: See Dynamic Systems Development Method.

duration: The total number of work periods required to complete an activity or work breakdown structure component, expressed in hours, days, or weeks. See also effort.

Dynamic Systems Development Method: An Agile project delivery framework.

EAC: See estimate at completion.

early finish date: In the critical path method, the earliest possible point in time when the uncompleted portions of a schedule activity can finish based on the schedule network logic, the data date, and any schedule constraints. See also critical path method.

early start date: In the critical path method, the earliest possible point in time when the uncompleted portions of a schedule activity can start based on the schedule network logic, the data date, and any schedule constraints. See also critical path method.

earned value: Abbreviated as EV, the measure of work performed expressed in terms of the budget authorized for that work.

earned value management: Abbreviated as EVM, a methodology that combines scope, schedule, and resource measurements to assess project performance and progress.

effort: The number of labor units required to complete a schedule activity or work breakdown structure component, often expressed in hours, days, or weeks. See also duration.

elevator statement: A succinct description of a product that helps the project team focus on product goals. Also known as an elevator pitch or vision statement.

empiricism: Making decisions based on the actual experience. An empirical approach implies that project decisions should be based on facts, evidence, and experiences.

EMV: See expected monetary value.

enterprise environmental factors: Conditions not under the immediate control of the team that influence, constrain, or direct the project, program, or portfolio.

epic: See compound user story.

escaped defect: A defect that goes undetected in all rounds of testing but is found in the production environment.

estimate at completion: Abbreviated as EAC, the expected total cost of completing all work expressed as the sum of the actual cost to date and the estimate to complete.

estimate to complete: Abbreviated as ETC, the expected cost to finish all remaining project work.

ETC: See estimate to complete.

EV: See earned value.

EVM: See earned value management.

Evo: See evolutionary value delivery.

evolutionary value delivery: Also known as Evo, a method that focuses on early and frequent delivery of small increments of value to the customer, with quality as an integral part of it. Openly credited as the first Agile method containing a specific component no other method has. The focus is on delivering multiple measurable value requirements to stakeholders.

expected monetary value: Abbreviated as EMV, a statistical technique used to calculate gains in monetary terms for a certain decision made.

Extreme Programming: Abbreviated as XP, an Agile software development method that leads to higher quality software, a greater responsiveness to changing customer requirements, and more frequent releases in shorter cycles.

fast failure: An approach of trying new things, getting fast feedback, and then quickly reviewing and adapting as per the feedback. In cases where there is a high degree of uncertainty, it is often less expensive to start working on basic deliverables, get the feedback, and make immediate decisions on continuing or stopping the planned deliverables.

fast tracking: A schedule compression technique in which activities or phases normally done in sequence are performed in parallel for at least a portion of their duration. See also crashing and schedule compression.

FDD: See feature-driven development.

feature-driven development: Abbreviated as FDD, a lightweight Agile software development method driven from the perspective of features valued by clients.

feedback loop: When the outcome of an existing running process is taken into account to improve the process and ensure it works better in the future.

Fibonacci sequence: A sequence of numbers in which each number is the summation of the two preceding numbers, starting with [0, 1]. This sequence of numbers is used for relative size estimation for user stories in story points.

fine-grained requirements: High priority requirements which are elaborated in detail and estimated precisely. See also coarse-grained requirements.

finish-to-finish: A logical relationship in which a successor activity cannot finish until a predecessor activity has finished.

finish-to-start: A logical relationship in which a successor activity cannot start until a predecessor activity has finished.

fishbone diagram: See cause-and-effect diagram.

fit for purpose: A product that is suitable for its intended purpose.

fit for use: A product that is usable in its current form to achieve its intended purpose.

fixed formula method: A method of estimating earned value in which a specified percentage of the budget value of a work package is assigned to the start milestone and the remaining percentage is assigned when the work package is complete. See also weighted milestone method.

Flow Master: The coach for a team and service request manager working in a continuous flow or Kanban context. Equivalent to Scrum Master. See also Scrum Master.

forward pass: A critical path method technique for calculating the early start and early finish dates by working forward through the schedule model from the project start date or a given point in time. See also backward pass.

framework: A basic system or structure of ideas or facts that support an approach.

free float: The amount of time that a scheduled activity can be delayed without delaying the early start date of any successor or violating a schedule constraint. See also total float, critical path, near-critical activity, and near-critical path.

functional organization: An organizational structure in which staff is grouped by areas of specialization and the project manager has limited authority to assign work and apply resources. See also matrix organization and projectized organization.

functional requirement: A specific behavior that a product or service should perform.

functional specification: A specific function that a system or application is required to perform; typically represented in a functional specifications document.

Gantt chart: A bar chart of schedule information where activities are listed on the vertical axis, dates are shown on the horizontal axis, and activity durations are shown as horizontal bars placed according to start and finish dates.

generalized specialist: An individual team member who has one or more technical specialties and at the same time has a general idea about the processes as well as the functional and domain knowledge for the project.

gold plating: The practice where a change is made in the scope of a project that is outside of the original agreed-upon scope.

grade: A classification of the deliverables which has the same functional use but differs in technical characteristics.

histogram: A specialized bar chart that organizes a group of data points into user-specified ranges to give a graphical representation of tabulated frequencies of data.

Hoshin Kanri: A strategy or policy deployment method to confirm that the strategic goals of an organization are key driving factors for a strategy and every implementation done in an organization.

human resource management plan: A component of a project or program management plan that describes roles and responsibilities, reporting relationships, and staff management. See also project management plan and staffing management plan.

hybrid approach: A combination of two or more Agile and non-Agile elements, having a non-Agile end result.

IDEAL: An organizational improvement model that serves as a roadmap for initiating, planning, and implementing improvement actions. Named for the five phases it describes: initiating, diagnosing, establishing, acting, and learning.

ideal days: An estimation technique where the size of work items done is based on how long an item would take to complete, provided it was the only work being performed, there were no disturbances, and all functional and resource details necessary to complete the work were immediately available.

impact mapping: A strategic planning technique that acts as a roadmap to the organization while building new products.

impediment: An obstacle that prevents the team from achieving its objectives. Also known as a blocker.

Increment: A functional, tested, and accepted deliverable that is a subset of the overall project outcome.

incremental life cycle: An approach that incrementally delivers the viable work items which are part of the actual solution or product that the customer can start using on every delivery.

information radiator: A visible, physical display that provides information to the rest of the organization, enabling up-to-the-minute knowledge sharing without any formal distribution by the team.

inspection:

1. In Agile, a measurement of the level of defects in a deliverable. A sampling approach is used, instead of reviewing the complete deliverable.

2. In project management, an official examination of a project deliverable to ensure that it satisfies the predetermined requirements.

internal rate of return: Abbreviated as IRR, one of the metrics used in financial analysis to estimate the sustainable profitability of potential investments for a project.

International Organization for Standardization: Abbreviated as ISO, an independent nongovernmental international organization which develops and publishes International Standards. ISO standards certify quality as well as security in both products and services in international trade.

INVEST criteria: Criteria to examine the quality of a user story. INVEST stands for Independent, Negotiable, Valuable, Estimable, Small, and Testable. If the story fails to meet any one of the INVEST criteria, then the team may discuss and refine the story accordingly.

IRR: See internal rate of return.

I-shaped: Refers to a person with a single deep area of specialization with no interest or skill in the rest of the skills required by the team. See also T-shaped and broken comb.

Ishikawa diagram: See cause-and-effect diagram.

ISO: See International Organization for Standardization.

iteration: A timeboxed cycle of development on a product or deliverable in which all of the work that is needed to deliver value is performed.

iterative life cycle: An approach that allows feedback for unfinished work to improve and modify that work.

JIT: See just in time.

just in time: Abbreviated as JIT, a process which is aimed to reduce inventory and thereby save cost, time, and space.

kaizen events: Typically short-span events in which the team does brainstorming and implementation sessions aimed toward improving the system.

Kanban board: A visualization tool that enables improvement in the flow of work by making bottlenecks and work quantities visible.

Kanban method: An Agile method for designing, managing, and improving flow systems for knowledge work; inspired by the original Kanban inventory control system.

Kano analysis: A tool to explore product attributes which are perceived to be important to customers. It helps product specification and discussion through better development of the team's understanding.

key performance indicator: Abbreviated as KPI. Provides direction for strategic planning, estimation, and assessment for improving operational processes.

KPI: See key performance indicator.

lag: The amount of time whereby a successor activity will be delayed with respect to a predecessor activity. See also lead.

large-scale Scrum: Abbreviated as LeSS, a product development framework that extends Scrum with scaling guidelines while preserving the original purposes of Scrum.

late finish date: In the critical path method, the latest possible point in time when the uncompleted portions of a schedule activity can finish based on the schedule network logic, the project completion date, and any schedule constraints. See also critical path method.

late start date: In the critical path method, the latest possible point in time when the uncompleted portions of a schedule activity can start based on the schedule network logic, the project completion date, and any schedule constraints. See also critical path method.

lead: The amount of time whereby a successor activity can be advanced with respect to a predecessor activity. See also lag.

lead time: A measure of the time elapsed between a request for a work item (story, task, bug, or support incident) and when the work item is delivered and the request is complete.

Lean software development: Abbreviated as LSD, an adaptation of the principles and practices of Lean manufacturing, which focuses on decreased costs, effort, and waste and increased quality, speed, and customer value.

LeSS: See large-scale Scrum.

lessons learned: The knowledge gained during a project which shows how project events were addressed or should be addressed in the future for the purpose of improving future performance.

level of effort: An activity that does not produce definitive end products and is measured by the passage of time. Level of effort is one of three earned value management types of activities used to measure work performance. See also apportioned effort and discrete effort.

life cycle: The process through which a product is imagined, created, and put into use.

Little's Law: A fundamental of queue theory. Defines the relationship between work in progress, throughput, and lead time. See also work in progress, throughput, and lead time.

logical relationship: A dependency between two activities or between an activity and a milestone.

LSD: See Lean software development.

management by objective: Abbreviated as MBO, a strategic management model used to improve the performance of an organization by defining the goals to be achieved, which are mutually agreed by the management as well as employees.

management reserve: Time or money that management sets aside in addition to the schedule or cost baseline and releases for unforeseen work that is within the scope of the project.

master service agreement: Abbreviated as MSA, a contract among two or more parties in which all the parties mutually agree to most of the terms used to govern all the prospect agreements.

matrix organization: An organizational structure in which the project manager shares authority with the functional manager temporarily to assign work and apply resources.

MBO: See management by objective.

metaphor: Relating words, labels, tags, or stories to various elements in a project or process. A metaphor is a team-specific terminology used within a project.

milestone: A significant point or event in a project, program, or portfolio.

milestone schedule: A type of schedule that presents milestones with planned dates.

minimum marketable feature: Abbreviated as MMF, the smallest set of functionality in a product or solution which is required to deliver value to the customer. MMF focuses on the features with the highest value and leads to reducing the time to market.

MMF: See minimum marketable feature.

mobbing: A technique in which multiple team members focus simultaneously and coordinate their contributions on a particular work item.

Monopoly money: A prioritization technique in which sponsors and business owners are given Monopoly money approximately equal to the project budget and asked to allocate this money to the different system features from the backlog.

Monte Carlo technique: An analytical technique used to emulate project activities, where outcome of action or decision is determined with the use of random numbers subject to allocated probabilities.

MoSCow method: A collaborative prioritization technique used to derive the sequence for delivery of requirements in order to gain maximum profit and bring value to the customer. MoSCoW stands for must have, should have, could have, and would have. Also known as MoSCoW prioritization or MoSCoW analysis.

most likely duration: An estimate of the most probable activity duration that takes into account all of the known variables that could affect performance. See also optimistic duration and pessimistic duration.

MSA: See master service agreement.

muda: See waste.

multi-voting: A decision-making technique used to select one mutually agreeable option from multiple alternatives. Involves group discussion and voting for eliminating the options until a single option remains.

near-critical activity: An activity with a total float that is deemed to be low based on expert judgment. See also total float.

near-critical path: A sequence of activities with low float which, if exhausted, becomes a critical path sequence for the project. See also critical path.

net present value: Abbreviated as NPV, the difference between the value of the present cash flow and that in the future, calculated by considering the present values of the future cash flows. When NPV is positive, it indicates profit for the project.

network logic: All activity dependencies in a project schedule network diagram.

network path: A sequence of activities connected by logical relationships in a project schedule network diagram.

node: A point at which dependency lines connect on a schedule network diagram.

NPV: See net present value.

opportunity: A risk that would have a positive effect on one or more project objectives.

opportunity cost: The loss of possible future return from the available alternative that is not selected or that needs to be left out; the potential return which will not be realized as a result of one option not being selected over another. Opportunity cost is one of the project selection criteria.

optimistic duration: An estimate of the shortest activity duration that takes into account all of the known variables that could affect performance. See also most likely duration and pessimistic duration.

organizational bias: The preferences of an organization on a set of scales characterized by certain core values: exploration versus execution, speed versus stability, quantity versus quality, and flexibility versus predictability.

organizational breakdown structure: A hierarchical representation of the project organization which illustrates the relationship between project activities and the organizational units that will perform those activities.

organizational change management: A comprehensive, cyclical, and structured approach for transitioning individuals, groups, and organizations from the current state to a future state with intended business benefits.

organizational enabler: A structural, cultural, technological, or human resource practice that the performing organization can use to achieve strategic objectives. See also organizational project management.

organizational process assets: Plans, processes, policies, procedures, and knowledge bases specific to and used by the performing organization.

organizational project management: A framework in which portfolio, program, and project management are integrated with organizational enablers in order to achieve strategic objectives. See also organizational enabler.

organizational project management maturity: The level of an organization's ability to deliver the desired strategic outcomes in a predictable, controllable, and reliable manner.

osmotic communication: Overhearing a discussion where information flows in from the background for the team members and they only pick up information significant to them via osmosis. Usually happens in collocated teams.

paint drip: See broken comb.

pair programming: Pair work that is focused on accomplishing a task or work item together, working as a pair from planning up to delivery. One of the engineering practices of Extreme Programming. See also Extreme Programming.

pair work: A technique of pairing two team members to work simultaneously on the same work item. See also pair programming.

Pairing: See pair work.

parametric estimating: An estimating technique in which an algorithm is used to calculate cost or duration based on historical data and project parameters.

Pareto principle: Also known as the 80/20 rule. States that for the majority of cases, 80% of consequences are a result of 20% of the causes.

Parkinson's Law: The empirical observation that explains the consumption of time and its correlation to work. States that "Work expands to fill the time available."

path convergence: A relationship in which a schedule activity has more than one predecessor.

path divergence: A relationship in which a schedule activity has more than one successor.

payback period: The time required to recover the cost of investment for a project. Usually measured in units of time, like weeks, months, or years. A project with a shorter payback period is preferred.

PDCA: See plan-do-check-act.

percent complete: An estimate expressed as a percent of the amount of work that has been completed on an activity or work breakdown structure component.

performance measurement baseline: Integrated scope, schedule, and cost baselines used for comparison to manage, measure, and control project execution.

performing organization: An enterprise that's personnel are the most directly involved in doing the work of the project or program.

persona: An imaginary character developed with selective details which are used to depict target customers and users who will be using a product or solution.

PERT: See Program Evaluation and Review Technique.

pessimistic duration: An estimate of the longest activity duration that takes into account all of the known variables that could affect performance. See also most likely duration and optimistic duration.

phase gate: A review at the end of a phase in which a decision is made to continue to the next phase, to continue with modification, or to end a project or program. See also project phase.

pivot: A planned course correction designed to test a new hypothesis about the product or strategy.

plan-do-check-act: Abbreviated as PDCA, an iterative management method used in organizations to facilitate the control and continual improvement of processes and products.

plan-driven approach: See predictive approach.

planned value: Abbreviated as PV, the authorized budget assigned to scheduled work.

planning poker: A collaborative estimation technique, based on team consensus. Uses relative sizes of work items for estimation and is a fast and effective estimation technique.

PMO: See project management office.

portfolio: Projects, programs, sub-portfolios, and operations managed as a group to achieve strategic objectives. See also program and project.

portfolio balancing: The process of optimizing the mix of portfolio components to further the strategic objectives of an organization.

portfolio charter: A document issued by a sponsor that authorizes and specifies the portfolio structure and links the portfolio to the organization's strategic objectives. See also program charter and project charter.

portfolio management: The centralized management of one or more portfolios to achieve strategic objectives. See also program management and project management.

portfolio management plan: A document that specifies how a portfolio will be organized, monitored, and controlled. See also program management plan and project management plan.

portfolio manager: The person or group assigned by the performing organization to establish, balance, monitor, and control portfolio components in order to achieve strategic business objectives. See also program manager and project manager.

precedence diagramming method: A technique used for constructing a schedule model in which activities are represented by nodes and graphically linked by one or more logical relationships to show the sequence in which the activities are to be performed. See also node and project schedule network diagram.

predecessor activity: An activity that logically comes before a dependent activity in a schedule. See also successor activity and summary activity.

predictive approach: An approach to work management that utilizes a work plan and management of that work plan throughout the life cycle of a project.

predictive life cycle: A more traditional approach, with the bulk of planning occurring up front, then executing in a single pass; a sequential process.

preventive action: An intentional activity that ensures the future performance of the project work is aligned with the project management plan. See also corrective action.

probability and impact matrix: A grid for mapping the probability of occurrence of each risk and its impact on project objectives if that risk occurs. See also risk.

procurement management plan: A component of the project or program management plan that describes how a team will acquire goods and services from outside of the performing organization. See also project management plan.

product backlog: An ordered list of user-centric requirements that a team maintains for a product.

product life cycle: The series of phases that represent the evolution of a product, from concept through delivery, growth, maturity, and to retirement. See also project life cycle.

product owner: A person responsible for maximizing the value of the product and one who is ultimately responsible and accountable for the end product that is built. See also service request manager.

product roadmap: A high-level summary that outlines the vision, direction, priorities, and progress on how the product will evolve over time.

program: A group of related projects, subprograms, and program activities that are managed in a coordinated way to obtain benefits not available from managing them individually. See also portfolio and project.

program charter: A document issued by a sponsor that authorizes the program management team to use organizational resources to execute the program and links the program to the organization's strategic objectives. See also portfolio charter and project charter.

Program Evaluation and Review Technique: Abbreviated as PERT, a technique used to estimate project duration through a weighted average of optimistic, pessimistic, and most likely activity durations when there is uncertainty with the individual activity estimates.

program management: The application of knowledge, skills, tools, and techniques to a program to meet the program requirements and obtain benefits and control not available by managing projects individually. See also portfolio management and project management.

program management office: A management structure that standardizes the program-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques. See also project management office.

program management plan: A document that integrates a program's subsidiary plans and establishes management controls and an overall plan for integrating and managing the program's individual components. See also portfolio management plan and project management plan.

program manager: The person authorized by the performing organization to lead the team or teams responsible for achieving program objectives. See also portfolio manager and project manager.

progressive elaboration: The iterative process of increasing the level of detail in a project management plan as greater amounts of information and more accurate estimates become available.

project: A temporary endeavor undertaken to create a unique product, service, or result. See also portfolio and program.

project budget: The sum of work package cost estimates, contingency reserve, and management reserve. See also contingency reserve and management reserve.

project calendar: A calendar that identifies working days and shifts that are available for scheduled activities.

project charter: A document issued by the project initiator or sponsor that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities. See also portfolio charter and program charter.

project life cycle: The series of phases that a project passes through from its initiation to its closure. See also product life cycle.

project management: The application of knowledge, skills, tools, and techniques to project activities to meet project requirements. See also portfolio management and program management.

project management office: Abbreviated as PMO, a management structure that standardizes the project-related governance processes and facilitates the sharing of resources, methodologies, tools, and techniques. See also program management office.

project management plan: A document that describes how a project will be executed, monitored and controlled, and closed.

project manager: The person assigned by the performing organization to lead the team that is responsible for achieving the project objectives. See also portfolio manager and program manager.

project phase: A collection of logically related project activities that culminates in the completion of one or more deliverables. See also phase gate.

project schedule: An output of a schedule model that presents linked activities with planned dates, durations, milestones, and resources.

project schedule network diagram: A graphical representation of the logical relationships among the project schedule activities. See also node and precedence diagramming method.

project scope: The work performed to deliver a product, service, or result with the specified features and functions.

project scope statement: A description of a project's scope, major deliverables, assumptions, and constraints.

project tailoring: Choosing and adopting processes and related inputs and outputs of a project per the needs of the project and available resources.

projectized organization: An organizational structure in which the project manager has full authority to assign work and apply resources. See also functional organization and matrix organization.

prompt list: A predetermined list of risk categories which are helpful in identifying risks in a project and may serve as a source of overall project risk.

prototype: A sample or model of an actual product which is developed to validate the hypothesis, confirm the results, and get the feedback for the product or the solution being built.

PV: See planned value.

quality management plan: A component of the project or program management plan that describes how an organization's quality policies will be implemented. See also project management plan and program management plan.

RACI chart: A tool used to allocate roles and responsibilities to the stakeholders of a project. RACI stands for Responsible, Accountable, Consulted, and Informed.

RAM: See responsibility assignment matrix.

RCA: See root cause analysis.

refactoring: A product quality improvement technique whereby the structure or implementation of a product is improved by preserving its functionality and expected behavior. It intends to reduce product complexity and maintainability.

relative prioritization: A technique used to generate a list of ordered work items (for example, epics, features, and user stories), taking into account both the benefits and the cost of the work items.

relative sizing: A method of estimating work items by comparing them to previously completed work items.

requirements management plan: A component of the project or program management plan that describes how requirements will be analyzed, documented, and managed. See also project management plan.

requirements traceability matrix: A grid that links product requirements from their origin to the deliverables that satisfy them.

residual risk: The risk that remains after risk responses have been implemented. See also secondary risk.

resource breakdown structure: A hierarchical representation of resources by category and type.

resource calendar: A calendar that identifies the working days and shifts upon which each specific resource is available.

resource leveling: A resource optimization technique in which adjustments are made to the project schedule to optimize the allocation of resources and which may affect critical path. See also resource smoothing and resource optimization technique.

resource optimization technique: A technique in which activity start and finish dates are adjusted to balance demand for resources with the available supply. See also resource leveling and resource smoothing.

resource smoothing: A resource optimization technique in which free and total float are used without affecting the critical path. See also resource leveling and resource optimization technique.

responsibility assignment matrix: Abbreviated as RAM, a grid that shows the project resources assigned to each work package.

retrospective: A team interaction which occurs at the end of every iteration, in which participants inspect and explore opportunities to improve, both the process and product, and create an improvement plan. Also see Sprint Retrospective.

risk: An uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives. See also opportunity and threat.

risk acceptance: A risk response strategy whereby the project team decides to acknowledge the risk and not take any action unless the risk occurs.

risk appetite: The degree of uncertainty an organization or individual is willing to accept in anticipation of a reward. See also risk threshold and risk tolerance.

risk avoidance: A risk response strategy whereby the project team acts to eliminate the threat or protect the project from its impact.

risk breakdown structure: A hierarchical representation of risks that is organized according to risk categories.

risk category: A group of potential causes of risk.

risk enhancement: A risk response strategy whereby the project team acts to increase the probability of occurrence or impact of an opportunity.

risk exploiting: A risk response strategy whereby the project team acts to ensure that an opportunity occurs.

risk exposure: An aggregate measure of the potential impact of all risks at any given point in time in a project, program, or portfolio.

risk management plan: A component of the project, program, or portfolio management plan that describes how risk management activities will be structured and performed. See also project management plan, program management plan, and portfolio management plan.

risk mitigation: A risk response strategy whereby the project team acts to decrease the probability of occurrence or impact of a threat.

risk owner: The person responsible for monitoring the risk and for selecting and implementing an appropriate risk response strategy.

risk register: A repository in which outputs of risk management processes are recorded.

risk report: A summarization of the risks (threats and opportunities); a short and quick document that summarizes top risks, current status, and proposed actions.

risk sharing: A risk response strategy whereby the project team allocates ownership of an opportunity to a third party who is best able to capture the benefit for the project.

risk threshold: The level of risk exposure above which risks are addressed and below which risks may be accepted. See also risk appetite and risk tolerance.

risk tolerance: The degree of uncertainty that an organization or individual is willing to withstand.

risk transference: A risk response strategy whereby the project team shifts the impact of a threat to a third party, together with ownership of the response.

risk-adjusted backlog: A sprint or release backlog which is reviewed and reprioritized based on the risk exposure for the backlog items.

rolling wave planning: An iterative planning technique in which the work to be accomplished in the near term is planned in detail, while the work in the future is planned at a higher level.

root cause analysis: Abbreviated as RCA, a structured problem-solving method aimed at finding the root causes of problems.

Rule of Seven: States that if seven or more consecutive measurements fall on one side of the mean, then the process is unstable. It indicates that there is an assignable cause that needs investigation.

SAFe®: See Scaled Agile Framework.

SBE: See specification by example.

Scaled Agile Framework: Abbreviated as SAFe®, a knowledge base of integrated patterns for enterprise-scale Lean-Agile development.

schedule baseline: The approved version of a schedule model that can be changed using formal change control procedures and is used as the basis for comparison to actual results.

schedule compression: A technique used to shorten schedule duration without reducing project scope. See also crashing and fast tracking.

schedule management plan: A component of the project or program management plan that establishes the criteria and activities for developing, monitoring, and controlling the schedule. See also project management plan and program management plan.

schedule model: A representation of the plan for executing a project's activities, including durations, dependencies, and other planning information; used to produce a project schedule along with other scheduling artifacts. See also schedule model analysis.

schedule model analysis: A process used to investigate or analyze the output of the schedule model in order to optimize the schedule. See also schedule model.

schedule network analysis: A technique to identify early and late start dates, as well as early and late finish dates, for the uncompleted portions of project activities.

schedule performance index: Abbreviated as SPI, a measure of schedule efficiency expressed as the ratio of earned value to planned value. See also cost performance index.

schedule variance: Abbreviated as SV, a measure of schedule performance expressed as the difference between the earned value and the planned value. See also cost variance.

scope baseline: The approved version of a scope statement, work breakdown structure, and associated WBS dictionary that can be changed using formal change control procedures and is used as the basis for comparison to actual results.

scope creep: The uncontrolled expansion to product or project scope without adjustments to time, cost, and resources.

scope management plan: A component of the project or program management plan that describes how the scope will be defined, developed, monitored, controlled, and validated. See also project management plan and program management plan.

Scrum: An Agile framework for developing and sustaining complex products, with specific roles, events, and artifacts.

Scrum board: A virtual or physical information board or information radiator, updated by the team, that shows all items that need to be completed for the current sprint, the flow of work, and any bottlenecks.

Scrum Master: A servant leader of the project team and the process owner in the Scrum framework; removes obstacles, facilitates productive Scrum events, and protects the team from external disruptions. See also Flow Master.

Scrum of Scrums: A technique for operating Scrum at scale for multiple teams working on the same product, coordinating discussions of progress on their interdependencies, and focusing on how to integrate the delivery of software, especially in areas of overlap.

Scrum Team: The self-organizing and cross-functional team of developers, Scrum Master, and product owner in a Scrum.

Scrumban: A hybrid Agile development methodology where teams use Scrum to develop, deliver, and maintain complex projects while using Kanban to continuously improve the way teams work.

S-curve analysis: A technique used to indicate performance trends by using a graph that displays cumulative costs over a specific time period.

secondary risk: A risk that arises as a direct result of implementing a risk response. See also residual risk.

self-organizing team: A team that chooses how best to accomplish its work objectives. Team members assume leadership as needed, rather than being directed by people from outside the team.

sensitivity analysis: See tornado diagram.

servant leadership: The practice of leading through service to the team by focusing on understanding and addressing the needs and development of team members in order to enable the highest possible team performance.

service request manager: The person responsible for ordering service requests to maximize value in a continuous flow or Kanban environment. Equivalent to product owner.

Shu Ha Ri: A Japanese model for skill acquisition, in which evolution takes place by following the rules (Shu), changing the rules or digressing (Ha), and ultimately the individual or group finding their own way (Ri).

siloed organization: An organization structured in such a way that employees do not have sufficient means or intent to share information or knowledge across the organization. It only manages to contribute a subset of all the aspects required for delivering value to customers. For contrast, see value stream.

single loop learning: The practice of attempting to solve problems by just using specific predefined methods, without challenging the methods in light of experience.

smoke testing: The practice of using a lightweight set of tests to ensure that the most important functions of the system under development work as intended.

specification by example: Abbreviated as SBE, a collaborative approach to defining requirements and business-oriented functional tests for software products based on capturing and illustrating requirements using realistic examples instead of abstract statements.

SPI: See schedule performance index.

Spike: A short time interval within a project, usually of fixed length, during which a team conducts research or prototypes an aspect of a solution to prove its viability.

Sponsor: An individual or group that provides resources and support for the project, program, or portfolio, and is accountable for enabling success. See also stakeholder.

Sprint: A timeboxed iteration in Scrum. See also iteration.

Sprint Backlog: A detailed list of work items identified and estimated by the Scrum Team and committed to complete during the sprint.

Sprint Planning: A collaborative event in a Scrum in which the Scrum Team plans and commits to the work or potential outcome for the current Sprint.

Sprint Retrospective: A team interaction to inspect the team performance, delivery, and obstacles faced for the last delivered Sprint. The team creates a plan for improvement, based on learning from previous Sprints, which are leveraged during subsequent Sprints. See also retrospective.

Sprint Review: An event in which the team reviews the actual work completed with the customer to seek feedback and review how and if the product or service needs to be enhanced further. Based on this review, the team then adapts in subsequent sprints.

staffing management plan: A component of the human resource plan that describes when and how team members will be acquired and how long they will be needed. See also human resource management plan.

stakeholder: An individual, group, or organization that may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project, program, or portfolio. See also sponsor.

stakeholder management plan: A component of the project management plan that describes how stakeholders will be engaged in project decision making and execution. See also project management plan.

start-to-finish: A logical relationship in which a successor activity cannot finish until a predecessor activity has started.

start-to-start: A logical relationship in which a successor activity cannot start until a predecessor activity has started.

story point: A unitless measure used in relative user story estimation techniques. See also user story.

successor activity: A dependent activity that logically comes after another activity in a schedule.

summary activity: A group of related schedule activities aggregated and displayed as a single activity.

sunk cost: A cost-irrecoverable expense without expected benefits for a project, activity, or event.

SV: See schedule variance.

swarming: A technique in which multiple team members focus collectively on resolving a specific impediment.

tacit knowledge: Knowledge that an individual accrues from actual or hands-on experience, and which cannot be gained by reading books.

task switching: An ability to quickly and efficiently adjust to different situations.

TCPI: See to-complete performance index.

team capacity: The total number of hours or days available for the team in a new Sprint. This may change from Sprint to Sprint, based on holidays, team members being on vacation, team members' availability, and other factors. The team considers capacity in determining how many product backlog items to plan for a Sprint.

team velocity: The amount of work a team can deliver during a single Sprint; a key metric calculated at the end of the Sprint as the sum of the story points completed and accepted by the customer.

technical debt: The deferred cost of work not done at an earlier point in the product life cycle; the implied cost of additional rework caused by choosing an easy solution instead of using a better approach that would take longer.

test-driven development: A technique where tests are defined before work begins, so that work in progress is validated continuously, enabling work with a zero defect mindset.

Theory of Constraints: Abbreviated as TOC, a methodology for evaluating the most critical limiting factor, or constraint, due to which difficulties are faced in accomplishing the set goal and then systematically planning improvements so that the constraint is no longer a limiting factor.

threat: A risk that would have a negative effect on one or more project objectives.

three-point estimating: A technique used to estimate cost or duration by applying an average or weighted average of optimistic, pessimistic, and most likely estimates when there is uncertainty with the individual activity estimates.

throughput: The total number of work items that are completed in a given time period – for example, during a week or during a Sprint.

timebox: A fixed period of time allocated to accomplish a goal – for example, 15 minutes, 1 week, 3 weeks, or 1 month. See also iteration.

TOC: See Theory of Constraints.

to-complete performance index: Abbreviated as TCPI, a measure of the cost performance achieved with the remaining resources in order to meet a specified management goal, expressed as the ratio of the cost to finish the outstanding work to the remaining budget.

tornado diagram: A special type of bar chart that represents the association between different variables related to its relative importance. This chart has data groups represented vertically in descending order.

total float: The amount of time that a schedule activity can be delayed or extended from its early start date without delaying the project finish date or violating a schedule constraint.

transparency: One of the pillars in a Scrum; means that all processes and their outcome must be visible to all stakeholders involved in a project.

trigger condition: An event or situation that indicates that a risk is about to occur.

T-shaped: A person with one deep area of specialization and broad ability as far as the rest of the skills required by the team are concerned. See also I-shaped and broken comb.

T-shirt sizing: An estimation technique used to derive quick and high-level estimates. Estimation is done using comparison and work items are classified into predefined categories like small, medium, large, and extra large.

Tuckman ladder: Elaborates the team development stages starting with Forming, then Storming, Norming, Performing, and finally Adjourning. Used for creating a high performing team.

use case: Encapsulates all possible ways the end user will use or interact with a product or system. Includes details for the different approaches in which the user and system can interact, and helps end users achieve their intended goals.

user story: A brief description of deliverable value for a specific user; a promise for a conversation to clarify details.

user story mapping: A visual exercise that helps product teams define the work that will create a delightful user experience; a visual practice for organizing work into a useful model to help understand the functionality to be created over time, identify omissions in the backlog, and effectively plan releases.

UX design: The process of enhancing the user experience by focusing on improving the usability and accessibility to be found in the interaction between the user and the product.

VAC: See variance at completion.

value stream: An organizational construct that focuses on the flow of value to customers through the delivery of specific products or services.

value stream mapping: A Lean enterprise technique used to document, analyze, and improve the flow of information or materials required to produce a product or service for a customer.

value-driven delivery: A way to plan and sequence work items for early and frequent delivery of value in an iterative and incremental manner.

variance analysis: A technique for determining the cause and degree of difference between the baseline and actual performance.

variance at completion: Abbreviated as VAC, a projection of the amount of budget deficit or surplus, expressed as the difference between the budget at completion and the estimate at completion. See also budget at completion and variance at completion.

virtual team: See distributed team.

walking skeleton: A model or proof of concept done to demonstrate a concept or solution.

waste: Also known as muda, the non-value-added tasks or processes which can be reduced or eliminated entirely to increase efficiency. Waste does not have value nor does it add value to a product or process.

WBS: See work breakdown structure.

WBS dictionary: A document that provides detailed deliverable, activity, and scheduling information about each component in the work breakdown structure. See also work breakdown structure.

weighted milestone method: A method of estimating earned value in which the budget value of a work package is divided into measurable segments, each ending with a milestone that is assigned a weighted budget value. See also fixed formula method.

what-if scenario analysis: The process of evaluating scenarios in order to predict their effect on project objectives.

Wideband Delphi technique: A group-based estimation technique for determining how much work is involved and how long it will take to complete.

WIP: See work in progress.

wireframe: A high-level outline of the user interface used for fast and quick feedback on the layout; gives an overview of the structure, information, and its flow.

work breakdown structure: Abbreviated as WBS, a hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables.

work in progress: Partially finished work items awaiting completion.

work package: The work defined at the lowest level of the work breakdown structure for which cost and duration can be estimated and managed.

workaround: An immediate and temporary response to an issue for which a prior response had not been planned or was not effective. See also risk mitigation.

XP: See Extreme Programming.