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CSC 4610

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Scrum Master Linked In Learning Notes

1. **Foundation**

**Agile Overview**

* Agile and Scrum not the same
* Scrum – Earliest framework to evolve. Just enough, just in time. Leading methodology in industry
* Eliminating waste from projects (scrum Xp Tdd)
* Got together to develop agile manifesto
* Business realized couldn't deliver what customer wanted if devs couldnt speak to customer. Scrum said lets make customer a part of the team.

**Scrum Foundation**

* Agile methodology – highly flexible and highly adaptable
* Agile manifesto – 4 Principles. Individuals and interactions over processes and tools, Working software over comprehensive documentation, customer collaboration over contract negotiation, responding to change over following a plan.
* Defined process management -> empirical process
* 12 Principles – 3 categories – customer, team, product and process

**Scrum Framework**

* Scrum is lightweight, easy to understand, and difficult to master
* Scrum 3 pillars – Transparency, inspection, adaptation
* Transparency – Process visible to the people doing it
* Inspection – team frequently inspects work and makes sure we are moving closer to goal
* Adaptation – adapting to be moving closer to the goal
* 4 Events – Sprint planning, daily scrum, sprint review, sprint retrospective
* Commitment courage focus openness respect

1. **The Scrum Team**

**Scrum Master Role**

* This person is managing the scrum process
* Helps product owner stay in process framework – Ensure backlog is updated, Make sure sprints are appropriate,
* helps dev team perform at highest order possible - Protects against outside distractions, protects against overwork and burnout, protects dev team from complacency, Own scrum framework itself

**Scrum Master as servant leader**

* Leader – owner and leader of the process, responsible for education dev team and PO
* Servant – Not focused on being best and brightest, focused onhelping others get the most out of scrum
* Serves the po by – Clarify goals and objectives, coach best practices, guide process and planning, facilitate scrum events, share knowledge
* Serve organization – coach adoption of scrum, guide awareness and understanding, help other scrum masters, assist dev teams

**Product Owner**

* Accountable for product
* PBI – Product backlog items
* Makes decisions related to the product
* Dev teams only takes direction from PO – max value of dev team
* Manage the product backlog
* PO has ultimate responsibility for product not proxy

**Product Owner Responsabilities**

* Product Backlog – can delegate with dev team sometimes
* Clearly express PBI
* Order PBI
* Ensure backlog is accessible
* Clarify requirements
* Provide status report
* Terminate sprints if PBI has no value
* PO manages backlog, not dev team

**Development Team**

* Scrum team – PO, Scrum master, Dev team
* Dev team – does the work included in PBI
* 3-9 people, fewer than 3 is too little, more than 9 is more time needed for no reason
* Produce shippable product increment
* Self organizing, Cross functional, doesn't acknowledge role or title

**Shared Resources**

* Only need skillset for a short period of time
* How to mimimize disruption – early inclusion of shared resources, big picture perspective, Backlog understanding, timing estimations

**Establishing Norms**

* Help members create shared behaviors to enhance performance
* Interactions: Considering ideas, asking for help, keeping commitments, holding team members accountable
* Communicate: Respect, Gratitide
* Meeting Interaction: Device usage, start end times, preferred hours
* Decision making: Consensus standards, Voting rules
* Conflict Resolution: Process, expectations, escalations

**Team Spaces**

* Teams need both spaces for either: collaborative work or individual work
* Allow them to choose
* Caves and commons – caves placed near common rooms
* Digital file sharing and collaboration – Jira

1. **SCRUM EVENTS**

**Scrum Events Overview**

* Ken and Jeff – founders
* Scrum Guide – Sprint planning, daily scrum, sprint review, sprint retrospective, product backlog refinement
* Provide opp. To inspect and adapt something
* Timebox – How an event expands and contracts in relation to a sprint
* Daily scrum – always 15 min
* 2 weeks for spring is most common
* Sprint planning for 2 week sprint is 4 hours

**Sprint Planning**

* Lifeblood of sprint
* Sprint planning meeting: Ordered product backlog, record of completed items, knowledge of past performance of dev team (velocity), dev team capacity
* 2 Questions : what will we do that results in product increment, and how will we do it
* Sprint goal – summary of work goal and value that will be delivered in sprint
* Sprint planning outcomes – Sprint goal, backlog items for sprint, sprint plan

**Daily Scrum**

* Scrum Guide: Attended and facilitated by team members, no attendance from master, PO doesn't participate
* Scrum alliance: Whole scrum team attends, any scrum team member can provide updates, any interested party can attend (More used)
* 3 Questions each team member answers: what did i do yesterday to meet sprint goal, what will i do today to meet sprint goal, what blockers do i have for sprint goal

**Backlog Refinement**

* Ordered list of requirements and ideas that help build product. Ongoing process used by PO to get more info about requirements and needs of product, scrum team meeting after midpoint of sprint
* Refinement event – dev team asks questions and get clarification, PO presentds candidates for next sprint
* Items ready for a sprint: Proper size, Dependencies identified, story has been sized by dev team, acceptance criteria defined

**Sprint Review**

* Held at end of sprint (afternoon of last day of sprint) - informal
* What's covered: PO gives goal and PBI’s give overview, team demonstrates product increment, PO shares backlog and new PBI’s, PO encourages open discussion with stakeholders, PO adds appropriate feedback into backlog
* Lasts about an hour for each week of the sprint
* PO hosts this review

**Sprint Retrospective**

* Last event in sprint – focused on scrum team and their practices
* A plan of improvements team will make in next sprint
* How they worked as a team, relationships, collaboration, tools and processes
* What went well, what didn't go well
* Create ordered lists

1. **SCRUM ARTIFACTS**

**Product Backlog**

* Ordered list of all work that needs to be done for product
* Characteristics: Feature, functionality, requirement, defect, enhancement
* Single product backlog
* **Sprint backlog** – subset of PBI - list of pbi’s dev team selects to include in sprint. Highest importance at top

**Backlog Ordering**

* 1. Backlog Refinement,
* Focus on things that are more important to customers (refinement)

**Product Increment**

* Product Increment – total functionality of all PBI’s delivered and accpeted in a sprint
* **Requirements:** Meets teams definition of done, meets acceptance criteria of PO, meets value envisioned in sprint goal
* Must still be relevant to market needs to be released
* Needs DOCUMENTATION\

**Definition Of Done**

* Acceptance criteria – PBI specific
* DoD – applies to ALL PBIS
* Must meet acceptance criteria, and DoD to be considered complete
* Regularly reviewed and updated by the teams

1. **TRACKING PROGRESS**

**Tracking and Reporting Progress**

* Track work remaining on each PBI
* Ensure transparency, remove impediments

**Burn Down Charts**

* Visual to track progress towards sprint goal
* X-axis: Number of days in sprint’
* Y-axis: number of tasks remaining to be completed (can also be number of estimated hours remaining but this is advised against)
* Ideal burn line – diamond shaped markers – shows ideal progression
* Actual burn line- square markers –shows actual progression

**Burn Up Charts**

* Shares how team is progressing to overall project or specific release
* X-axis – sprints represented
* Y-axis – points team need to complete
* Cirlce- release scope, when scope is reduced or increased
* Square – ideal burn line or to do line – to stay on track
* Diamond – work team is completing each sprint