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Asignatura: Fundamentos de la Ingeniería de Software

NRC: 1950

Alpha State Card Game

Objetivo

- Determinar el progreso y las tareas pendientes del desarrollo del software “Sistema de pagos de alcúotas”.

Desarrollo

El juego realizado con las tarjetas Alpha fue “Persigue el Estado”, que consiste en ubicar las tarjetas Alpha realizadas en la parte izquierda mientras que las tarjetas Alpha que se encuentran en la derecha se refieren a las tareas pendientes.

Las tarjetas Alpha se clasifican en cinco ámbitos:

- ❖ Stakeholders, se refiere a las personas involucradas en el desarrollo del software como: dueño del producto, líder scrum y equipo scrum.
- ❖ Opportunity, se refiere a la identificación de la necesidad del dueño del producto y desarrollar la solución para satisfacer esta necesidad.
- ❖ Requirements, se refiere a la determinación de los requisitos funcionales que deben ser cumplidos para satisfacer la necesidad del dueño del producto.
- ❖ Software System, se refiere a los recursos tanto de hardware como software que son necesarios para el desarrollo del software.
- ❖ Team, se refiere al compromiso de cada integrante del equipo de desarrollo para cumplir con cada requisito funcional que se le fue asignado y acordado.
- ❖ Work, se refiere al seguimiento del trabajo del equipo de desarrollo, su planificación y registro de las actividades realizadas.
- ❖ Way of working, se refiere a la forma de trabajar del equipo de desarrollo y aprobación de las partes interesadas, con respecto a la capacidad del equipo a la adaptación a posibles cambios, a los principios y prácticas que realiza el scrum team que deben estar alineados a las necesidades del dueño y partes interesadas.



Conclusión

- Las tareas pendientes son sobre la presentación del incremento de la finalización de cada sprint al dueño del producto y la liberación del software en un entorno controlado o en producción.

Anexos

Alpha State Card Game

Video. Juego de “Persigue el Estado” con cartas Alpha.

Stakeholders

The people, groups, or organizations who affect or are affected by a software system.

Recognized

Represented

Involved

In Agreement

Satisfied for Deployment

Satisfied in Use

1/6

1/6

2/6

3/6

4/6

5/6

6/6

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Stakeholders

Recognized

Stakeholder groups identified

Key stakeholder groups represented

Responsibilities defined

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Stakeholders

Represented

Responsibilities agreed

Representatives authorized

Collaboration approach agreed

Way of working supported & respected

2/6

2/6

3/6

4/6

5/6

6/6

Opportunity

The set of circumstances that makes it appropriate to develop or change a software system.

Identified

Solution Needed

Value Established

Viable

Addressed

Benefit Accrued

1/6

1/6

2/6

3/6

4/6

5/6

6/6

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Opportunity

Identified

Time behind opportunity identified

At least one investing stakeholder identified

Other stakeholders identified

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Opportunity

Solution Needed

Solution identified

Solution options needs established

Problems and root causes identified

Need for a solution confirmed

At least one solution proposed

2/6

2/6

3/6

4/6

5/6

6/6

Opportunity

Value Established

Opportunity value quantified

Solution value understood

System value understood

Conflicts addressed

Essential characteristics clear

Key usage scenarios explained

3/6

3/6

4/6

5/6

6/6

Opportunity

Viable

Solution outlined

Solution meets other constraints

Risks acceptable & manageable

Self prioritized

Reasons to develop solution understood

Pursuit viable

4/6

4/6

5/6

6/6

Requirements

What the software system must do to address the opportunity and satisfy the stakeholders.

Conceived

Bounded

Coherent

Acceptable

Addressed

Fulfilled

1/6

1/6

2/6

3/6

4/6

5/6

6/6

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Requirements

Conceived

Stakeholders agree system to be intended

Users identified

Emerging characteristics identified

Opportunity clear

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Requirements

Bounded

Development stakeholders identified

System purpose agreed

System scenarios clear

Shared solution understanding

Requirements known agreed

Requirements management in place

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Requirements

Coherent

Requirements shared

Requirement origin clear

Rationale clear

Conflicts addressed

Essential characteristics clear

Key usage scenarios explained

3/6

3/6

4/6

5/6

6/6

Requirements

Acceptable

Acceptable solution described in change under control

User to be realized clear

Clear how opportunity addressed

Testable

4/6

4/6

5/6

6/6

Requirements

Addressed

Enough addressed to be acceptable

Requirements and system match

Major resource clear

System worth making operational

5/6

5/6

6/6

Software System

A system made up of software, hardware, and data that provides its primary value by the execution of the software.

Architecture Selected

Demonstrable

Usable

Ready

Operational

Retired

1/6

1/6

2/6

3/6

4/6

5/6

6/6

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Software System

Architecture Selected

Architecture selected criteria agreed

All systems identified

Technologies selected

System boundary known

Decisions on system organization made

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Software System

Demonstrable

Key architectural characteristics demonstrated

System accepted as fit for purpose

System performance acceptable

Defect levels acceptable

System fully documented

Release content known

2/6

2/6

3/6

4/6

5/6

6/6

Software System

Usable

System can be operated

System functionality tested

System accepted as fit for purpose

Defect levels acceptable

System fully documented

Release content known

3/6

3/6

4/6

5/6

6/6

Software System

Ready

User documentation available

System ready for deployment

Stakeholders want the system

Operational support in place

4/6

4/6

5/6

6/6

Team

A group of people actively engaged in the development, maintenance, delivery or support of a specific software system.

Seeded

Formed

Collaborating

Performing

Adjusted

1/6

1/6

2/6

3/6

4/6

5/6

6/6

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Team

Seeded

Mission defined

Members known and defined

Growth mechanisms in place

Consensus attained

Responsibilities outlined

Required competences identified

Support resources identified

Size determined

Governance rules defined

Understand mission related

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Team

Formed

Enough members recruited

Plans understood

How to work understood

Members introduced

Individual responsibilities accepted and aligned to competences

Teamwork accepted with

Consensus on tasks identified

Communication mechanisms defined

Members commit to team

2/6

2/6

3/6

4/6

5/6

6/6

Team

Collaborating

Works as one unit

Communication open and honest

Focused on mission

Members know each other

3/6

3/6

4/6

5/6

6/6

Work

Activity involving mental or physical effort done in order to achieve a result.

Initiated

Prepared

Started

Under Control

Completed

Closed

1/6

1/6

2/6

3/6

4/6

5/6

6/6

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Work

Initiated

Required result clear

Constraints clear

Involved stakeholders known

Initiator identified

Accounting stakeholders known

Source of funding clear

Priority clear

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Work

Prepared

Consensus clear

Cost and effort well understood

Progress monitored

Risk exposure understood

Resources clearly managed

Team sufficiently trained down to start

Team identified and prepared

Credible plan in place

Working in place

At least one team member ready

Integration points defined

2/6

2/6

3/6

4/6

5/6

6/6

Work

Started

Development started

Consensus clear

Cost and effort well understood

Progress monitored

Risk exposure understood

Resources clearly managed

Team sufficiently trained down to start

Team identified and prepared

Credible plan in place

Working in place

At least one team member ready

Integration points defined

3/6

3/6

4/6

5/6

6/6

Work

Under Control

Tasks being completed

Risks under control

Estimates reviewed to reflect performance

Progress measured

Work under control

Commitments consistently met

4/6

4/6

5/6

6/6

Way of Working

The tailored set of practices and tools used by a team to guide and support their work.

Principles Established

Foundation Established

In Use

Working Well

Retired

1/6

1/6

2/6

3/6

4/6

5/6

6/6

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Way of Working

Principles Established

Team actively support principles

Stakeholders agree with principles

Tool needs agreed

Approach recommended

Operational context understood

Practice & tool constraints known

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Way of Working

Foundation Established

Key practices & tools selected

Practices needed to start work agreed

Non-negotiable practices & tools defined

Gaps between available and needed way of working understood

Capex in capacity understood

Integrated way of working available

2/6

2/6

3/6

4/6

5/6

6/6

Way of Working

In Use

Practices & tools in use

Practices needed to start work agreed

Adapted to context

Supported by team

Feedback mechanism in place

Practices & tools support collaboration

3/6

3/6

4/6

5/6

6/6

Way of Working

Working Well

Predictable progress being made

Practices naturally applied

Tools naturally support way of working

Continuously tuned

4/6

4/6

5/6

6/6

Stakeholders

Involved

Representatives assist the team

Timely feedback and decisions provided

Changes promptly communicated

3/6

3/6

4/6

5/6

6/6

Stakeholders

In Agreement

Minimal expectations agreed

Rep's happy with their involvement

Rep's input valued

Team's input valued

Processes clear & perspectives balanced

4/6

4/6

5/6

6/6

Stakeholders

Satisfied for Deployment

Stakeholder feedback provided

System ready for deployment

5/6

5/6

6/6

Stakeholders

Satisfied in Use

Feedback on system use available

System meets expectations

6/6

6/6

Opportunity

Addressed

Opportunity addressed

Solution worth deploying

Stakeholders satisfied

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Opportunity

Benefit Accrued

Solution accrues benefits

ROI acceptable

6/6

6/6

Requirements

Fulfilled

Stakeholders accept requirements

No longer required

Requirements fully satisfied

6/6

6/6

Software System

Operational

System available for use

System has

Agreed service levels supported

3/6

3/6

4/6

5/6

6/6

Software System

Retired

Replaced or decommissioned

Continuously subject to change

No further support

Updates stopped

6/6

6/6

Team

Adjusted

Responsibilities fulfilled

Members available to other teams

Mission completed

1/6

1/6

2/6

3/6

4/6

5/6

6/6

Team

Performing

Consistently meeting commitments

Continuously subject to change

Addressing problems

Research and backtracking

Waste continuously eliminated

2/6

2/6

3/6

4/6

5/6

6/6

Work

Completed

Only admin tasks left

Results achieved

Resulting system accepted

3/6

3/6

4/6

5/6

6/6

Work

Closed

Lessons learned

Metrics available

Budget recorded & closed

Team released

No outstanding, uncompleted tasks

4/6

4/6

5/6

6/6

Way of Working

Retired

No longer in use

Continuously discarded

6/6

6/6

Way of Working

Working Well

Predictable progress being made

Practices naturally applied

Tools naturally support way of working

Continuously tuned

5/6

5/6

6/6