ESSENCE KERNEL REPORT

COURSE PROJECT ~

MiniBuzz

Course Project Partners ~

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❑ PREFACE ~

The most Prominent Motivation behind the Project (MiniBuzz) is to provide the users with a 'Not So Boring' kind of Interactive Interface, where Users can Post Live Queries & Interact To other users Posts' by Replying to their Queries.
This Document States & Describes the Software Application, *(MiniBuzz),* focussing upon the Essential things i.e Essence based Approach **{** *Major Focus on Essence Kernel & their States** **}** Considering all the Problem Statement, Requirements, Domain & Context, Functionalities & Non functionalities, Use Cases , User Scenarios, Stakeholders etc as Elaborated Precisely in the SRS Document.

○ DOCUMENT APPROACH

- Scrutinising Customer's or User's Requirements, Experiences, Beliefs & Ideas all throughout the Development Process
- Taking in Account the aspect of Development Team
- Accounting the Relationship amongst Various Elements
- Essentializing all the States that Software anchors contemplating all Aspects in regard to the Essence Standards

○ DOCUMENT USES

☐ IT TEAM	☐ DEVELOPERS	☐ PROGRAMMERS
☐ PROJECT MANAGER	☐ FINANCE MANAGER	☐ SOFTWARE ARCHITECTS
☐ DESIGNERS	☐ TESTING TEAM	☐ DEVELOPMENT TEAM

* Described Later in Document

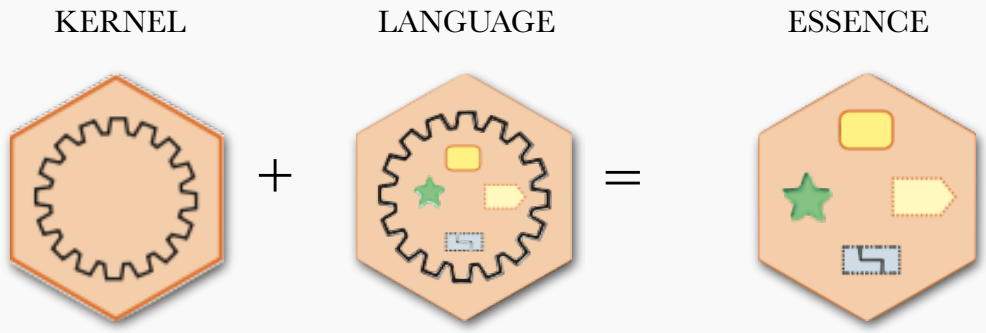
DOCUMENT STRUCTURE~

- PREFACE
  - Document Approach
  - Document Users
- DOCUMENT STRUCTURE
  - Structure
- INTRODUCTION
  - Insights
  - Essence Focus
- ESSENCE
  - Essence Language
  - Essence Kernel
- STATE CARDS
  - Kernel Alpha
- STATES
  - Kernel Activity space
- STATE
  - Kernel Competencies
- STATE CARDS
  - Kernel Patterns

INTRODUCTION~

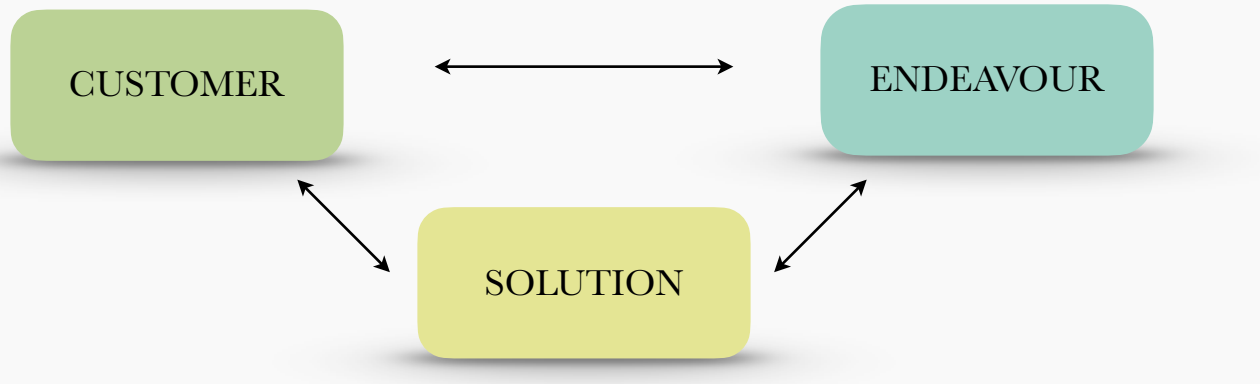
ESSENCE INSIGHTS

- Common ground, or a Kernel, shared amongst all the Methods & Practices pursued
- Providing a Dynamic & Engaging user Experience when approaching the Practices & Methods
- Focus upon the Essential Things Rather than following the details of Practices
- To bring the Project come alive, Resulting in much more Reliable & Usable Outcome



ESSENCE FOCUSSES

Essence takes a structured approach in organising the elements of software engineering. They are depicted below as the major ***areas of concern*** ~



- CUSTOMER
  - Concerns actual Use & Exploitation of the Software system to be Produced
- SOLUTION
  - Concerns Specification & Development of the software system.
- ENDEAVOUR
  - Concerns Development Team & the Way that they approach their work.

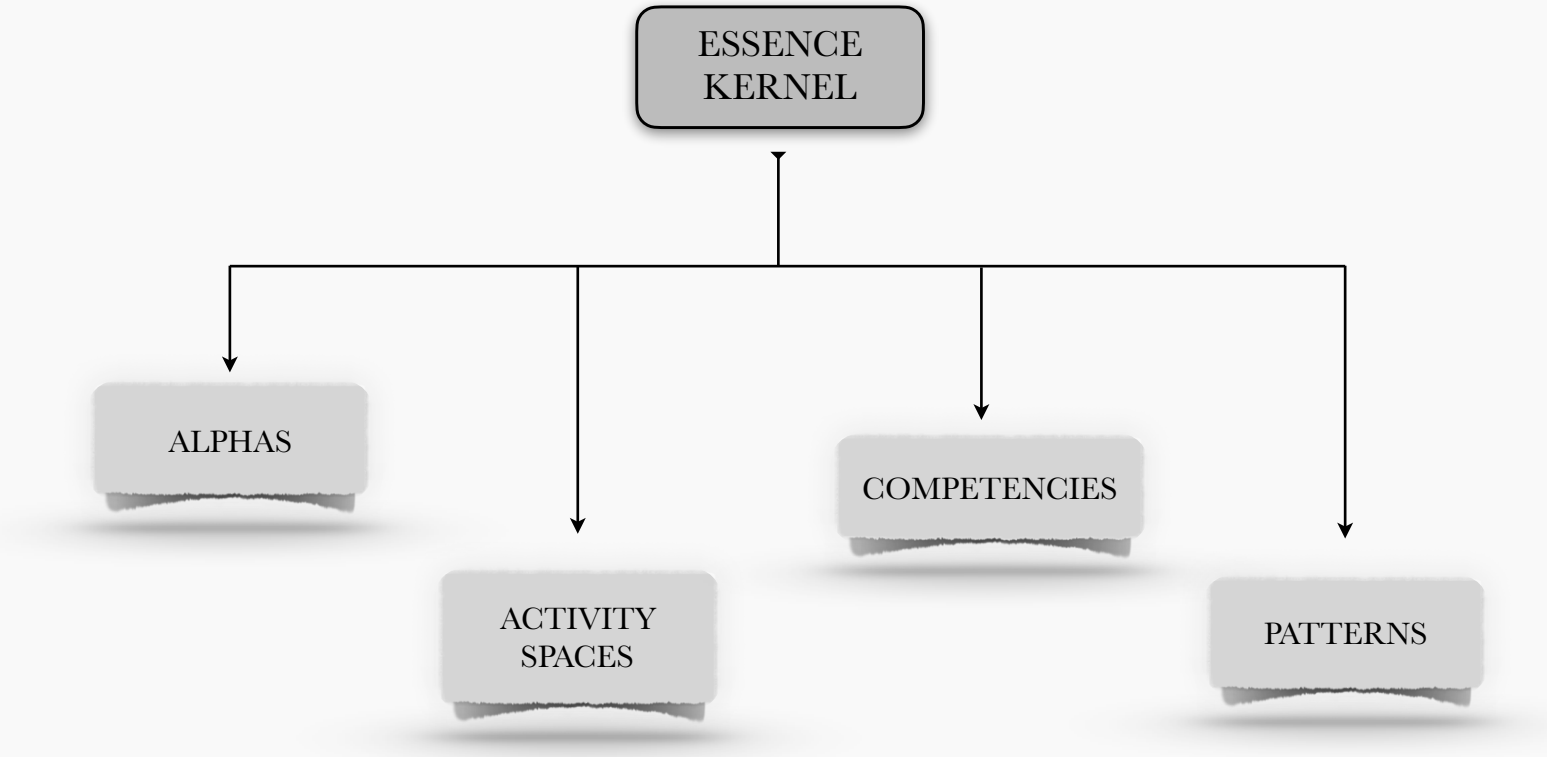
ESSENCE

ESSENCE LANGUAGE

Essence provides a Precise & Actionable Language to describe software engineering Practices. There are constructs in Essence Language in form of Shapes & Icons.

Alpha α	***Work Product***	***Activity***
Competency ☆	***Activity space***	***Patterns***

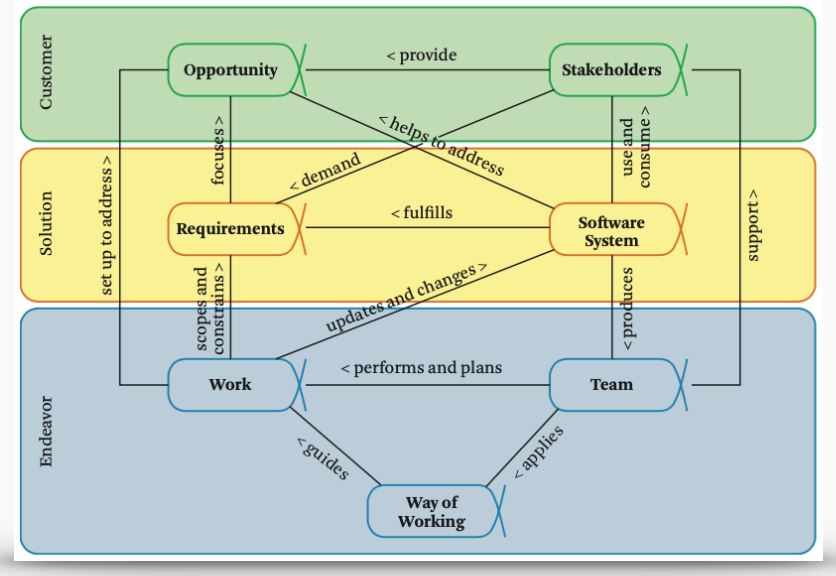
ESSENCE KERNEL



- Alphas ~
  - Essential things to Work with
- Activity Spaces ~
  - Essential things to Do
- Competencies ~
  - Essential Capabilities Needed
- Patterns ~
  - Essential Arrangements of Elements & Practices

☐ STATE CARDS ~ { *Kernel Alpha* }

○ RELATIONSHIP AMONGST ALPHAS ~



☐ OPPOURTINITY

- Represents the Team's shared understanding of Stakeholders' needs
- Assists in shaping the requirements
- Helps to Address the Software System
- States goes from Identified to Benefit Accrued

☐ STAKEHOLDERS

- Demands Opportunity
- Source of Requirements & Assists by funding the Project
- They are Supported by the Team
- Ensures that a Acceptable software system is Produced

☐ REQUIREMENTS

- Important to Know what is Needed
- It largely concentrated on the opportunity

☐ SOFTWARE SYSTEM

- It Fulfils the stated & mentioned Requirements

☐ WORK

- Everything a Team does in order to fulfils the requirements
- The Work done changes & updates the Software system

☐ TEAM

- Group of People who accomplish the way
- Collaborate through the way of Working

☐ WAY of WORKING

- The process in which the particular work has been accomplished by the team

CUSTOMER

α OPPOURTINITY

The set of Circumstances that articulates the Creation or development of new or changed Software System

- ☐ Identified
- ☐ Solution Needed
- ☐ Value Established
- ☐ Viable
- ☐ Addressed
- ☐ Benefit Accrued

- ***Identified*** ~ The manifesting Idea has been recognised
- ***Solution Needed*** ~ Solution is Identifies as per stakeholders' needs & its need has been confirmed
- ***Value established*** ~ Solutions value & impact has been quantified
- ***Viable*** ~ Solution is Possible considering all the risks
- ***Addressed*** ~ Opportunities are addressed & solution is worth deployment
- ***Benefit Accrued*** ~ Benefit has been made from the deployed solution

α STAKEHOLDERS

The People, Group or Organisations who affect or are affected by a Software System

- ☐ Recognized
- ☐ Represented
- ☐ Involved
- ☐ In Agreement
- ☐ Satisfied for Deployment
- ☐ Satisfied in Use

- ***Recognised*** ~ Stakeholder groups have been identified.
- ***Represented*** ~ Structure for Stakeholders Involvement has been agreed upon & their Representatives have been authorised.
- ***Involved*** ~ Representatives assists the team & Provide Continuous Feedbacks.
- ***In Agreement*** ~ Minimal Expectations have been agreed & Priorities are comprehensible.
- ***Satisfied for Deployment*** ~ Stakeholders' feedback has been recorded & System is Ready for Deployment.
- ***Satisfied in Use*** ~ System meets the demanded Expectations & Requirements.

☐ SOLUTION

α REQUIREMENTS

What the Software System must do to Address the Opportunity & Satisfy the Stakeholders

- ☐ Conceived
- ☐ Bounded
- ☐ Coherent
- ☐ Acceptable
- ☐ Addressed
- ☐ Fulfilled

- ***Conceived*** ~ the need for a new system has been agreed upon.
- ***Bounded*** ~ The purpose and theme of the new system are clear.
- ***Coherent*** ~ The requirements provide a consistent description of the essential characteristics of the new system.
- ***Acceptable*** ~ The requirements describe a system that is acceptable to the stake- holders.
- ***Addressed*** ~ Enough of the requirements have been addressed to satisfy the need for a new system in a way that is acceptable to the stakeholders.
- ***Fulfilled*** ~ The requirements have been addressed to fully satisfy the need for a new system.

α SOFTWARE SYSTEM

A System made up of Software, Hardware & Data that provides its primary value by the Execution of the Software

- ☐ Architecture Selected
- ☐ Demonstrable
- ☐ Usable
- ☐ Ready
- ☐ Operational
- ☐ Retired

- ***Architecture Selected*** ~ Key decisions about the Software System have been made.
- ***Demonstrable*** ~ Key use of the Software System has been demonstrated and agreed.
- ***Usable*** ~ The Software System is usable from the point of view of its users.
- ***Ready*** ~ The Software System has sufficient quality for deployment and the production environment is ready.
- ***Operational*** ~ The Software System is operating well in the production environment.
- ***Retired*** ~ The Software System is retired and replaced by a new version or by a separate Software System.

☐ ENDEAVOUR

α WORK

Activity involving Mental or Physical Effort done in order to Achieve a Result

- ☐ Initiated
- ☐ Prepared
- ☐ Started
- ☐ Under Control
- ☐ Concluded
- ☐ Closed

- ***Initiated*** ~ All priorities are clear & known abut stakeholders & requirements
- ***Prepared*** ~ All tasks are identified & prioritised & is ready to go on
- ***Started*** ~ Work to be done in the development process has been started
- ***Under Control*** ~ All tasks are going as per the planning
- ***Concluded*** ~ work results are achieved
- ***Closed*** ~ Team is released without any pending tasks to be done

α TEAM

A Group of People actively Engaged in the Development, Delivery or support of a specific Software System

- ☐ Seeded
- ☐ Formed
- ☐ Collaborating
- ☐ Performing
- ☐ Adjourned

- ***Seeded*** ~ Mission has been defined, constraints are knows & Leadership model has been selected
- ***Formed*** ~ Team Member Roles are Understood, introduced, & accepted
- ***Collaborating*** ~ Team is working as a single entity, supporting each other
- ***Performing*** ~ Team is working & consistently meeting all requirements
- ***Adjourned*** ~ Team has fulfilled the Responsibilities & mission accomplished

α WAY Of WORKING

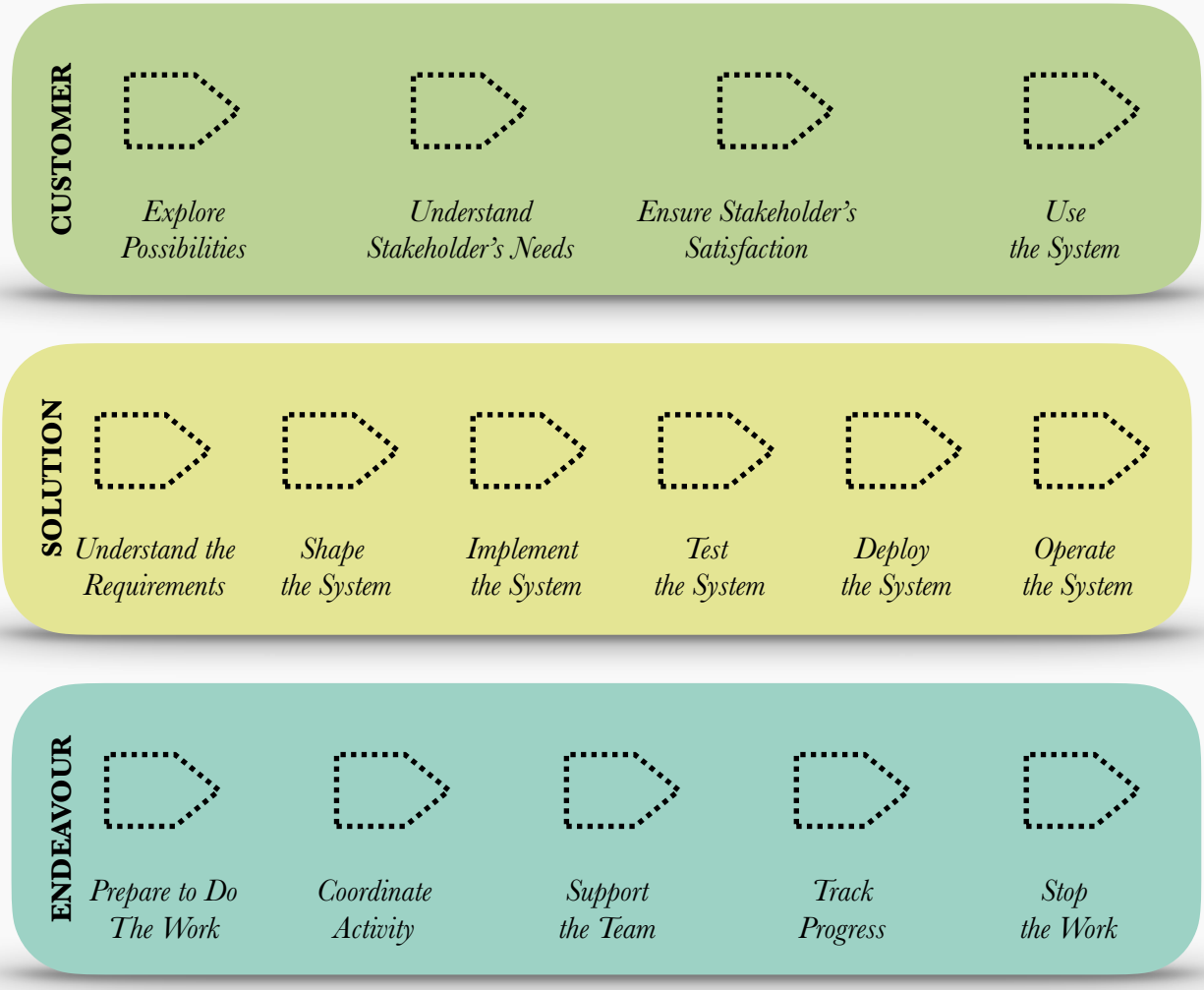
The tailored set of Practices & Tools used by the Team to Guide & Support their Work

- ☐ Principles Established
- ☐ Foundation Established
- ☐ In use
- ☐ In Place
- ☐ Working Well
- ☐ Retired

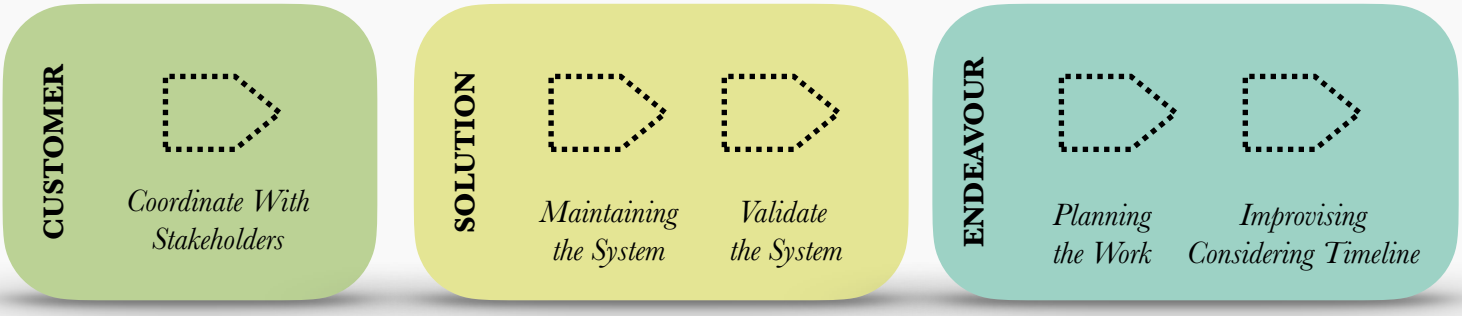
- **Principle *Established*** ~ Principles to be followed are being identified
- ***Foundation Established*** ~ Basic foundation of the work is being laid
- ***In Use*** ~ Practices & tools adapted are in use
- ***In Place*** ~ All things are being done in appropriate order
- ***Working Well*** ~ Way of Working adopted is working well
- ***Retired*** ~ Work has been accomplished and team is retired

STATES ~ { *Kernel Activity Spaces* }

KERNEL STANDARDS

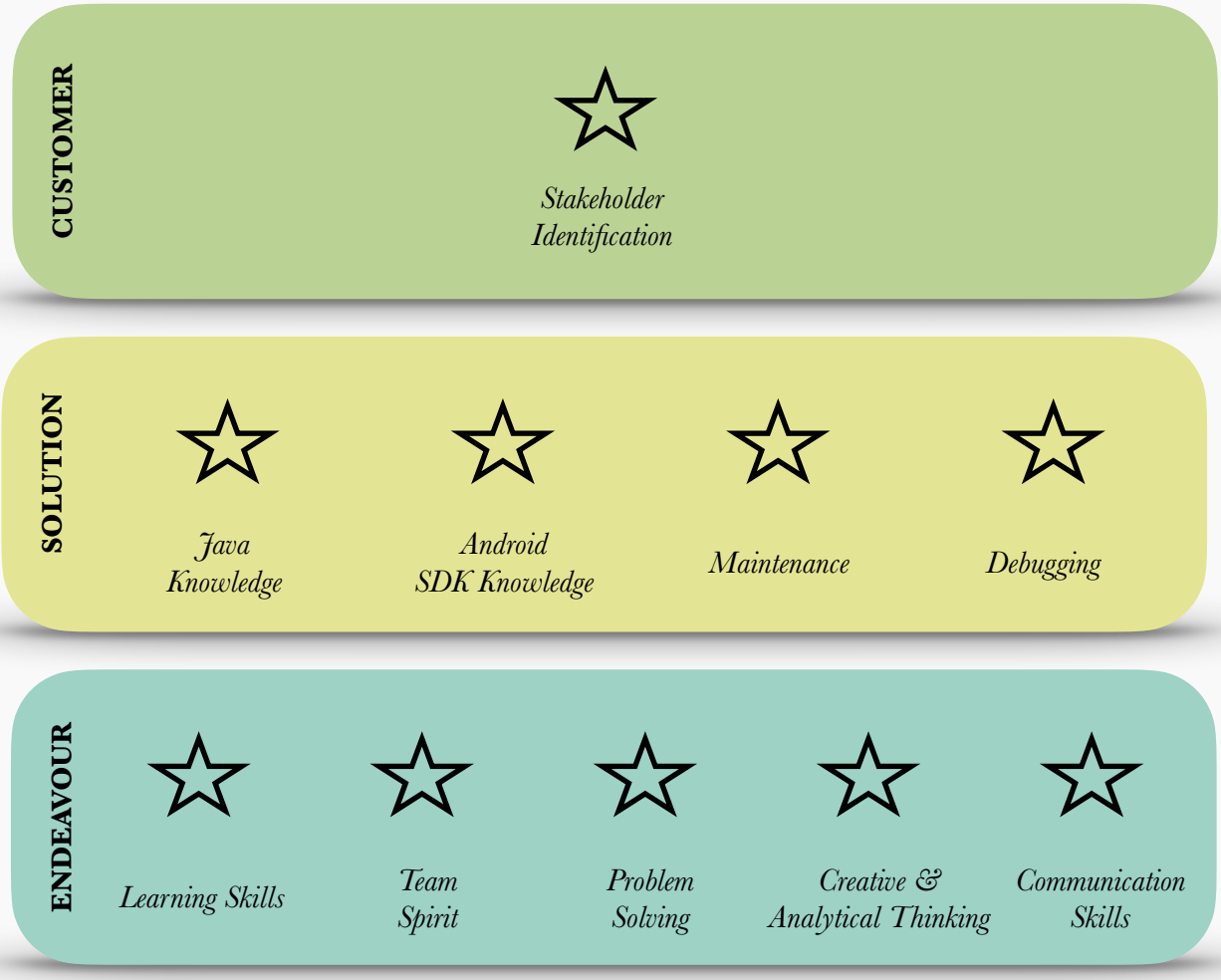


PROJECT SPECIFIC KERNEL



KERNEL STANDARDS

PROJECT SPECIFIC KERNEL



S T A T E S ~ { *Kernel Patterns* }

ROLES

STUDENT PAIR

The Collaboration of two students supporting & Reviewing each other in the completion of Project

- Timeline Planning together
- Collecting Requirements together
- Working on the Code together
- Reviewing the code together
- Correcting each other's mistake

ARCHITECT

Role Responsible for finding the best and optimal way of relationship amongst various components & processes

Skills & Competencies Required ~

- Creative & analytical thinking
- Learning Skills
- Problem Solving

DESIGNER

Role Responsible for translating the Requirements into a Prior Preview of what output must look like

Skills & Competencies Required ~

- Creative & analytical thinking
- Learning Skills

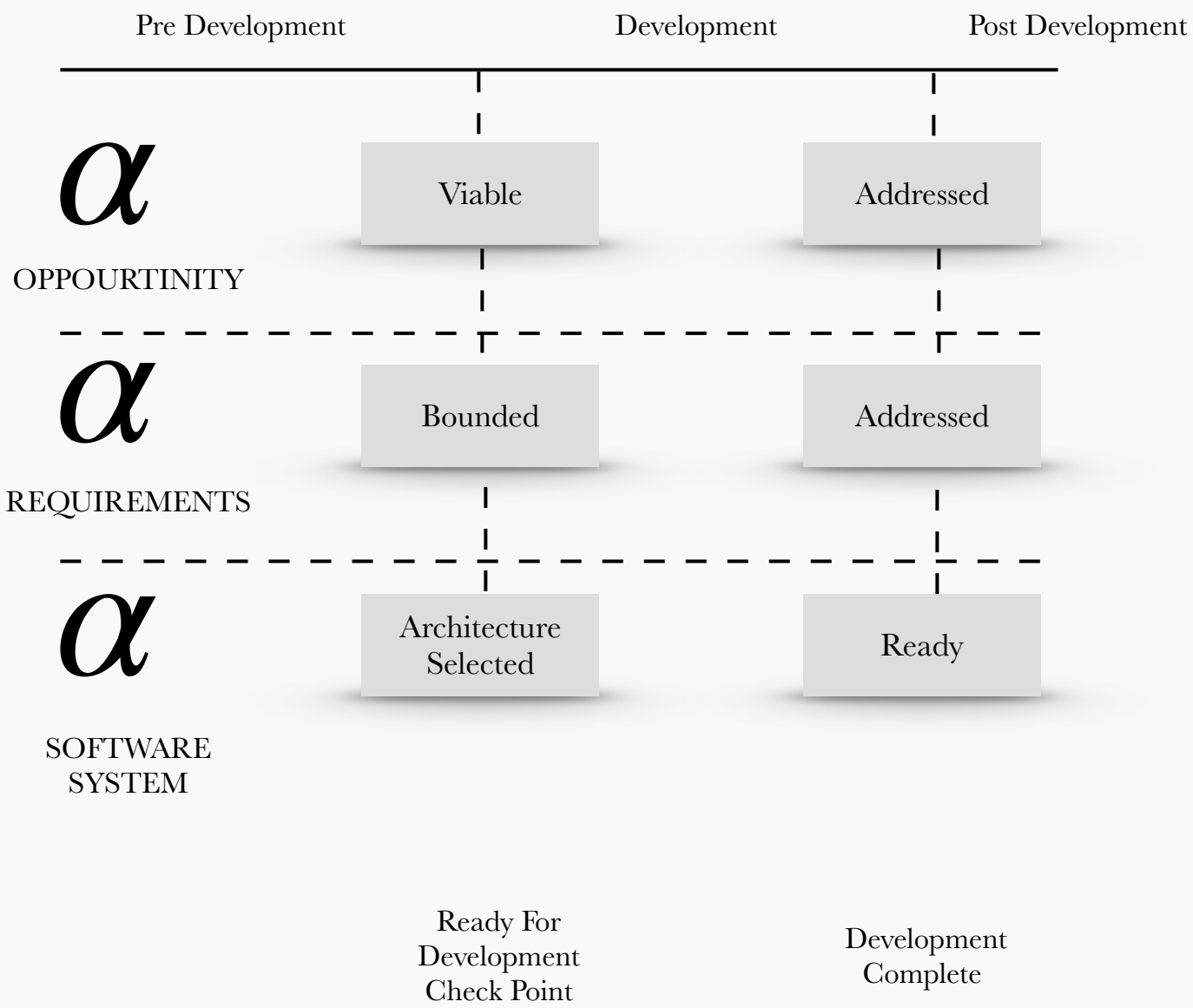
CODER

Role Responsible for translating the Requirements into Physical way that is the code.

Skills & Competencies Required ~

- Java Knowledge
- Android SDK Knowledge
- Maintenance
- Debugging

CHECKPOINT PATTERN

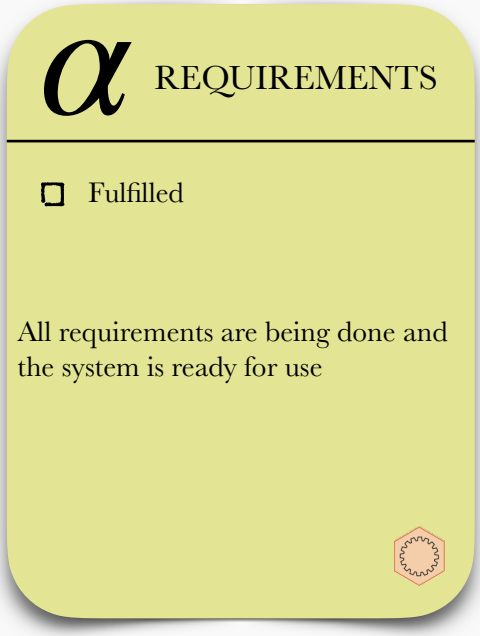


POKER CARD GAME

- **ALPHA STATES**
  - **OPPOURTINITY**

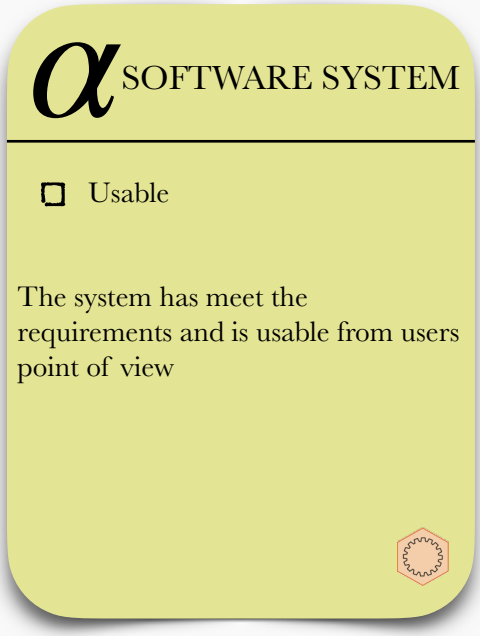
Final - addressed

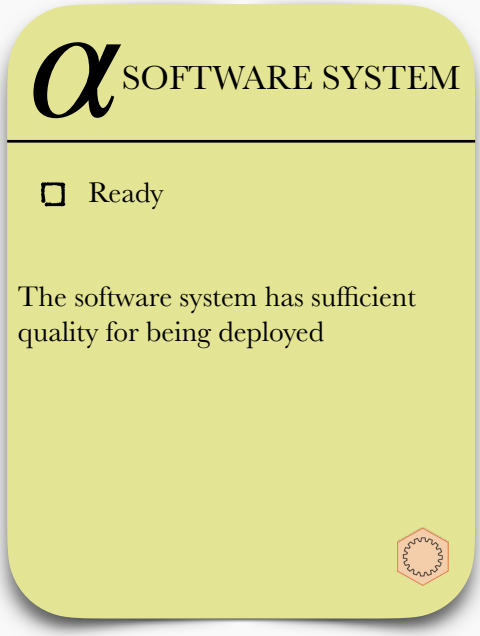
  - REQUIREMENTS



Final - fulfilled

SOFTWARE SYSTEM





Final - Ready