13/03/2024

INTRODUCTION CLASS

Smart Snigdha
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SDLC : (Software Development Life Cycle)

Phases of SDLC :

Phase 1 : Requirement Gathering / Analysis

Phase 2 : Design

Phase 3 : Implementation

Phase 4 : Testing

Phase 5 : Deploy / Maintenance

Requirement Gathering / Analysis :

Functional Requirements : Product List

Non - Functional Requirements : Additional Requirements (Payments)

Design :

SRS - Software Requirements Specifications

Testing :

Verification : Whatever we asked that is provided.

Validation : Whether it satisfies all the essential conditions.

SRS: (Software Requirements Specifications)

Flowchart, System Architecture, Object Oriented Design, Use Case Diagram, Class Diagram, Sequence diagram, collaboration diagram, Activity diagram, System diagram.

HL design: High-level design [Overall model]

LL design: Low-level design [Specific aspects in model]

Types of models:

Waterfall model [Each phase should be sequential order]

V model, Agile model, Rapid model, Iterative and incremental model. spiral model

ORBIT: (Aspire Culture)

O - Open and Frank exchange of thoughts

R - Respect for others

B - Balanced Freedom with response.

I - Inclusive Learning

T - Total focus on customers

Technical - 60%

Soft Skills - 40%

70 Self : 20 Assist : 10 Assessment

3 types of Assessments:

Training, SL (Service Line)

College,

SCRUM: (Agile Team Collaboration Framework)

Scrum Master, Scrum Team Member.

Stand-up calls: 15 mins

(First 5 mins - What we learnt in yesterday's class,
Next 5 mins - What we do for today's class,
Last 5 mins - Queries / Feedback).

14/03/2024

Definition of SRS :

i) Behaviour of System, Functional and non-functional requirements of the system.

ii) Formal report, according to the customer's requirements.

iii) Used at the end of requirements engineering phase.

Users of SRS :

① Client ② Development Team

③ Maintenance Team ④ Technical writers

Need of SRS Document :

i) Structures and formalizes all project requirem

ii) Exactly meets customer and target audience.

iii) Provides necessary information while working.

iv) Minimizes the possible misunderstandings.

v) Plan particular iterations and release dates.

vi) Required development budget.

Structure of SRS :

1. Introduction

1.1 Purpose

1.2 Intended Audience

1.3 Scope

1.4 Definition

1.5 References

2. Overall description

2.1 User Interface

2.2 System interface

2.3 Software and Hardware Requirements

2.4 Constraints

2.5 User characteristics

3. System Features & Requirements :

3.1 Functional requirements

3.2 Use cases / Sequence diagrams

3.3 External Interface Requirements

3.4 Database requirement

3.5 Non-functional Requirements

4. Deliver for Approval.

Characteristics of good SRS :

1. Correctness : Accurate functional and non-functional requirements.

2. Completeness : Complete all essential features like functionality, performance, design etc...

3. Consistency : Following the required format.

4. Unambiguousness : Should not make any confusions.

5. Ranking for importance and Stability } : Urgent must be fulfilled, based on rankings.

6. Modifiability : Quickly obtain changes.

7. Verifiability : Verified with the help of reviewers / stakeholders.

8. Design independence : Select from multiple design alternatives for the final system.

9. Traceability : Unique number for easy identification

10. Testability : Simple to generate test cases / test plan

11. Understandable by the customer : Simple and clear

12. The Right level of abstraction : Details should be explained explicitly.