**SIR MUHAMMAD UMAIR KHAN**

Advanced Software Engineering - 414

**SOFTWARE ENGINEERING**

4th Semester – Morning

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STUDENT INFOR MATION SYSTEM

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**PROJECT**

Student Information System

**LAB 01**

**DATE SUBMITTED**

2-09-2018

LAB 02

STATE OF THE ART

* What did the others do?
* Methodologies
* Techniques
* Modules
* Tools and Software
* Sources

**1. What did the others do?**

**1.1 Related Systems**

Existing systems contains all the basic features that are required for Student Information System. The following are the related systems:

1. *Smart School:* School Management System
2. *Fedena:* School Management Software
3. School Management System by *Vaibhav Patidar*
4. **METHODOLOGIES**

Methodologies are the collection of methods in software development required to complete the process of developing the software.

Following are the methodologies followed by the above mentioned related systems:

* + - * *Agile Development Principles*

1. Iterative Development
2. Open Collaboration
3. Adaptability

**2.1 Agile Development Principles**

Most of the newly developed software used Agile Development because of its communication flexibility between stakeholders and developers.

The following are the principles that will be followed:

* + 1. **Iterative Development**

The software would be developed iteratively where each iteration consists of the required core features that would be given to the client and feedback would be taken for further development.

* + 1. **Open Collaboration**

It is the back bone of Agile Development Principles where unrestricted communication is promoted between clients and developers.

* + 1. **Adaptability**

Changes in the later development should be effortlessly, in order to this; software should be developed by expecting future changes to adapt new features seamlessly.

1. **TECHNIQUES**

Apart from methodologies, techniques in software development concerned with the following:

1. Information Gathering
2. Data Collection Techniques
   1. **Information Gathering**

Information Gathering is an art of science. The aim of information gathering is to understand the problems faced by the user and finding the right solution by studying the current systems, their documents and meeting with experts etc.

* 1. **Data Collection Techniques**

Gathering the requirements right is the most important process in the software development. It is the bridge between the real world problems and software based systems. The following data collection techniques has used by the above mentioned related systems:

1. Practical Observation
2. Document Analysis
3. Prototyping
4. **MODULES**

Modules are the sub-systems of the software on which the project is based. It is a categorical view of the system. Student Information System would be based on the following modules:

1. Student Management Module
2. Employee Management Module
3. Scholarship Management Module
4. Class Management Module
5. **TOOLS & SOFTWARES**

The following are the tools and software would be used for the development of Student Information System:

|  |  |
| --- | --- |
| Environment | *Microsoft Visual Studio* |
| Front End | *C#* |
| Back End | *Microsoft Sql Server* |
| Platform | *Desktop – Windows* |

1. **SOURCES & LINKS**

The following are the sources and links to the systems mentioned in the related systems:

1. *Smart School:* <https://bit.ly/2KhJXKa>
2. *Fedena:* <https://fedena.com/>
3. *School Management System:* <https://bit.ly/2NCVe9j>