University of Liberal Arts Bangladesh

Mid Term Exam

Summer 2020

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Student ID : 172014051

Course code : CSE 404

Course name : Software Engineering

Section number : 01

Date : 16th August 2020

Answer of Question 1

Software engineering differs much from other engineering principles. The diffences are given below:

↳ Like system engineering concerned about the computer based systems including hardware, but the software engineering is concerned about most general things.

↳ Traditional engineering used to construct the real constructions whereas software engineering is about the entire constructions but not in the real.

Software doesn't 'wear out' means software never dies. It is one of the feature of software. We can maintain, develop and also use the software in future. However, a software in steady state, may need modifications on need to add more features. But the existing software never die. A software can get update easily, not like hardware, which requires

physical interaction. Alternative software with ~~implementation~~ implementation of current user demand can replace a software. ~~So s~~ That is why software doesn't wear out.

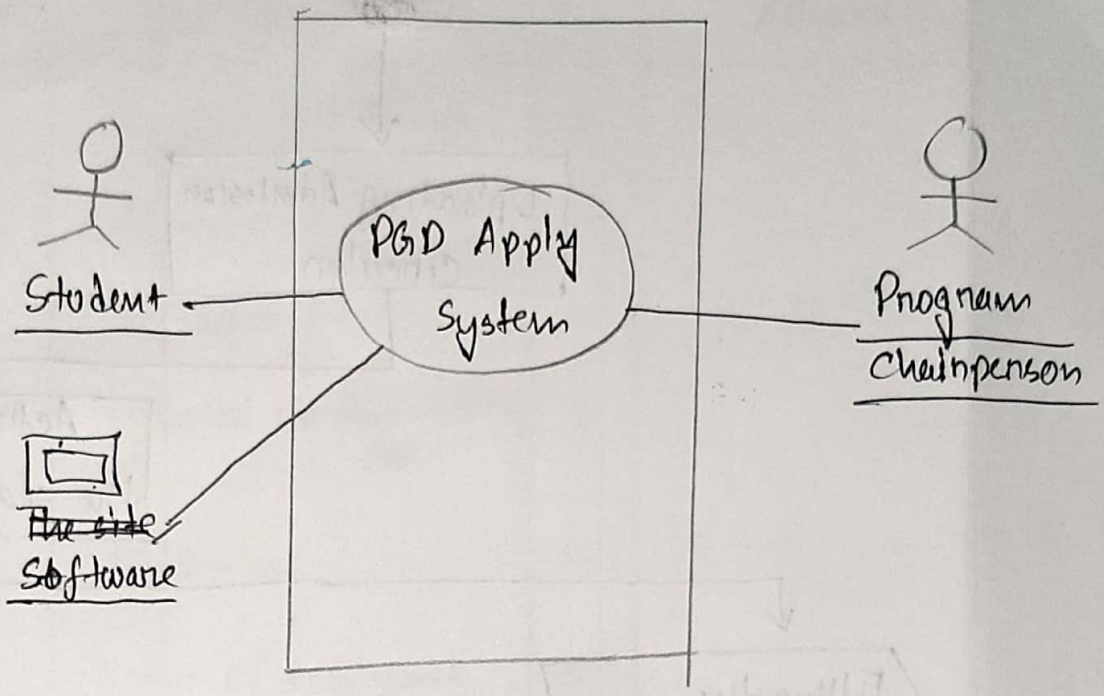
Answer of Question 2

No, I don't agree with Zahid. Before developing the software we can get ideas about the quality of the software from defining and designing phase. From defining phase we can know what are the features of the software and from desining phase we can know about ~~the~~ how those features will work together. So we can get ideas about the quality of the software before we develop it fully.

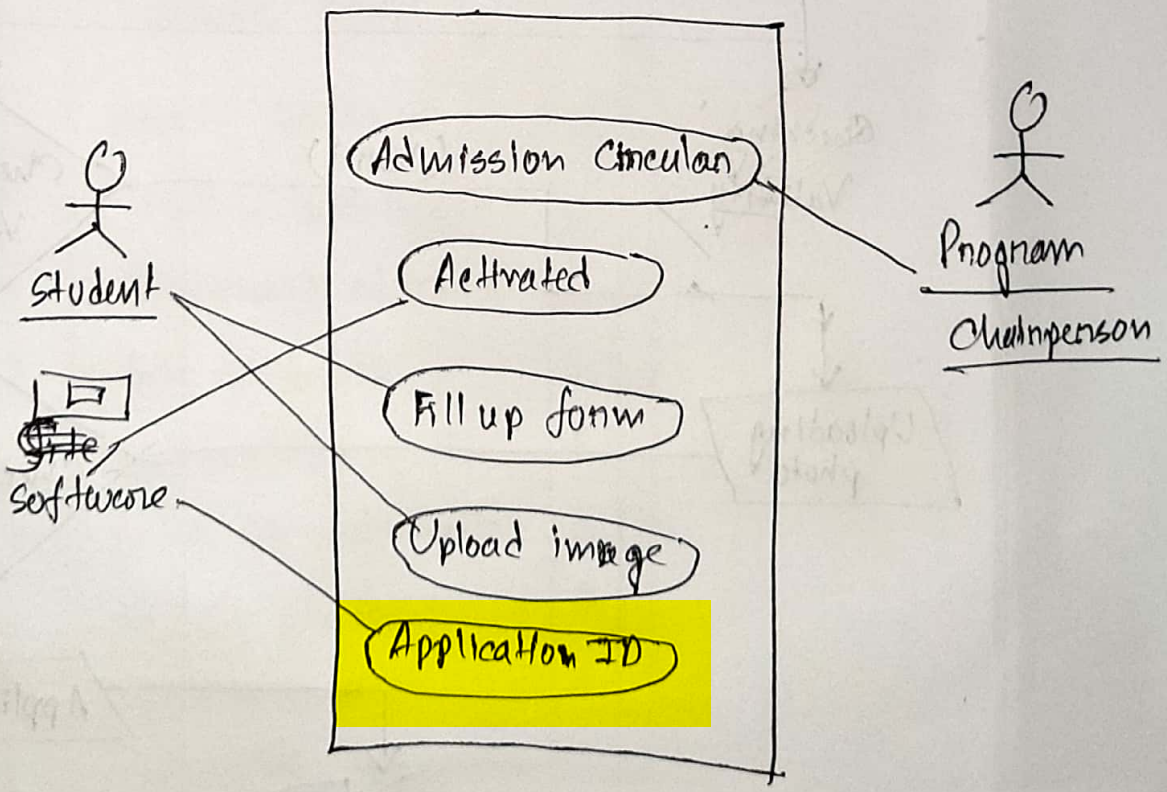
Incremental Model	Evolutionary Model
(i) In initial iteration, develops and releases a product containing fully developed core features.	(i) In initial iteration, develops and releases a product containing a basic version of all available features.
(ii) Adds new features in subsequent iteration.	(ii) Improves and evolves features in subsequent iteration.

Incremental Model	Evolutionary Model
(iii) Increment is developed in entire process until adequate system has been developed.	(iii) It is based on developing initial increment, which can deliver at the end to user.

Answer of Question 3

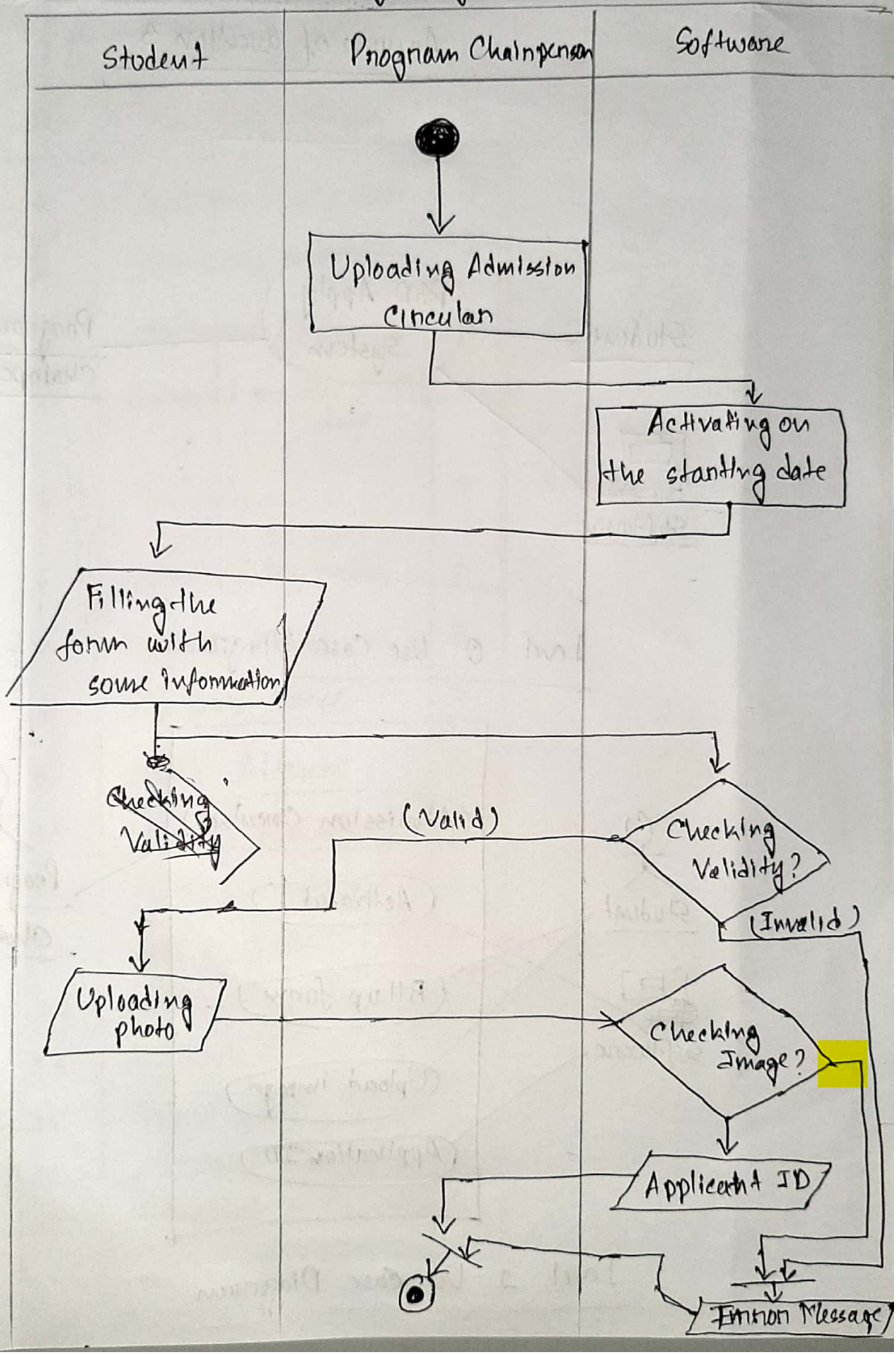


Level 0 Use Case Diagram



Level 1 Use Case Diagram

Activity Diagram



Answer of Question 4

Noun Identification

ID:	Noun/ Noun Phrase	P/S	Attributes
1	Program Chairperson	S	2
2	Admission Circular	S	
3	Software / Site	S	4, 16, 12
4	Activated on the starting date	S	
5	Students	S	6, 7, 8, 9, 10, 11, 12, 13 14, 15
6	Name of Applicant	S	
7	Father's name	S	
8	Mother's name.	S	
9	Email Address	S	
10	Mobile number	S	
11	Permanent address	S	
12	Date of birth	S	
13	Nationality	S	
14	Academic information	S	
15	Upload photo	S	
16	Applicant ID	S	
17	Submitted information	S	

Program Chairperson → 2 (not data objects)

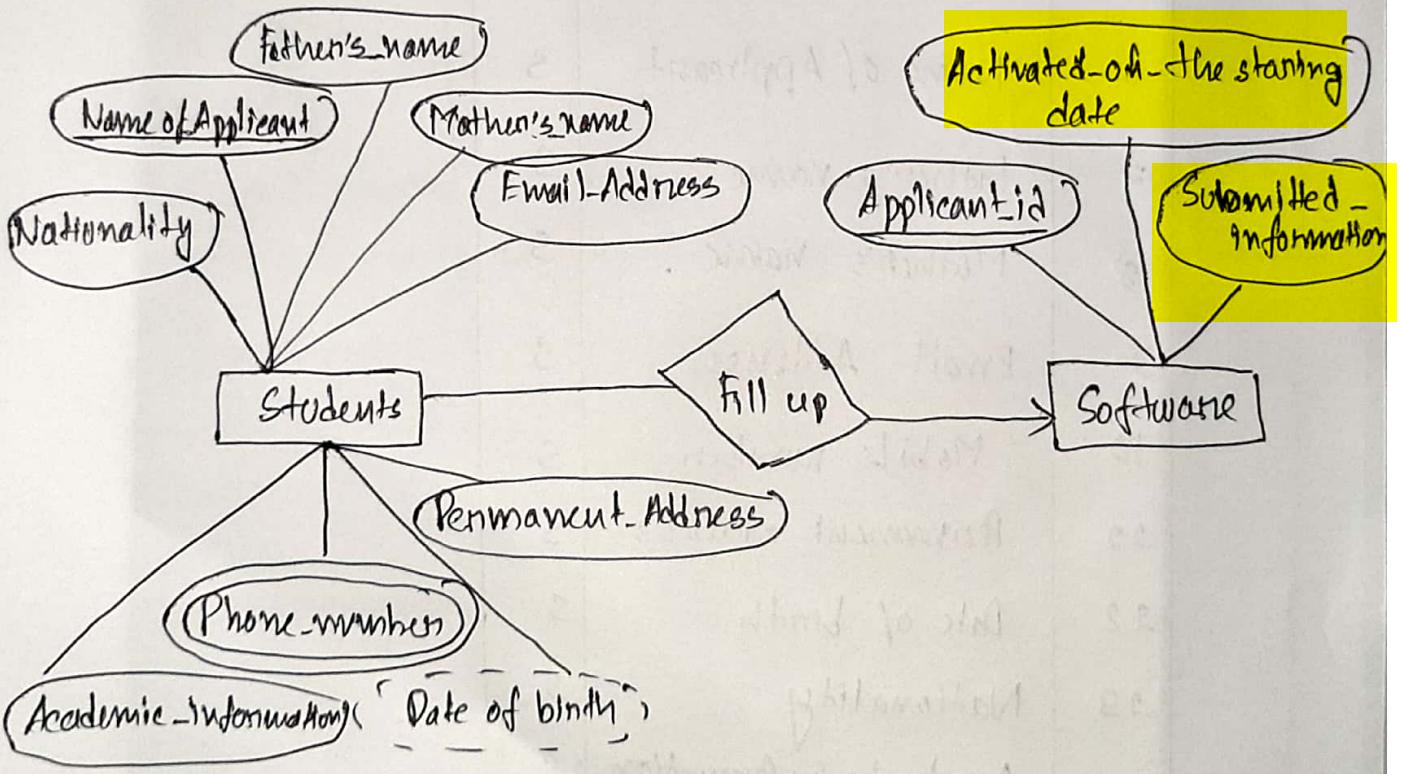
Students → 6 – 15

Software → 4, 16, 22

Students --- [Fill up form] --- Software

(many to one)

Data Object Relation



ER Diagram

Student		
Column	Type	Size
Name of Applicant	Varchar	30
Father's Name	varchar	30
Mother's Name	varchar	30
Email Address	varchar	20
Mobile Number	int	15
Permanent Address	varchar	20
Date Of Birth	date	
Nationality	char	20
Academic Information	text	100

Software		
Column	Type	Size
Activated On the Starting Date	date	
Applicant ID	int	6
Submitted Information	varchar	200

Schema Table