Salmi

19K-1043   BS SE (A)

ISE FINAL

Q # 1

(a)

Product BackLog:-

Dish Bowl 1	1). Bear Out of home
Dish Bowl 2	2). Goldilock in home
Dish Bowl 3	3). Goldilock eats third dish
Seat 1	4). Goldilock like third seat
Seat 2	5). Third Seat Broke
Seat 3	6). Goldilock nods off on third
Bed 1	Bed
Bed 2	7). Bears Return home
Bed 3	8). Bears Irritate about meal,
	seat and Bed
	9). Bears Thunder Goldilock
	10). Goldilock run home.

(b)

Answer: Basically Prototyping is the initial version of system that tells the core concepts and how the system is going to be designed. Prototyping can be done in both waterfall and Agile method. It has nothing to do with the concepts of waterfall and Agile.

It only show the pre-image of the system and used in the process of Software Development Life Cycle (SDLC). Prototyping is done before the development of system.

Q #2

(a)

Reasons for Requirement Change:

1). The business rapidly change with the span of Time, so for this purpose new requirements comes up which cause previous requirements to change.

2). New technical stuff and hardware may introduce which may create change in the interface of the system or becomes incompatible with current system. Therefore it cause the change in requirements to must fulfill the current need.

3). The budget constrains may cause the customer to conflict with development but after the real release of the system new features of the system may added
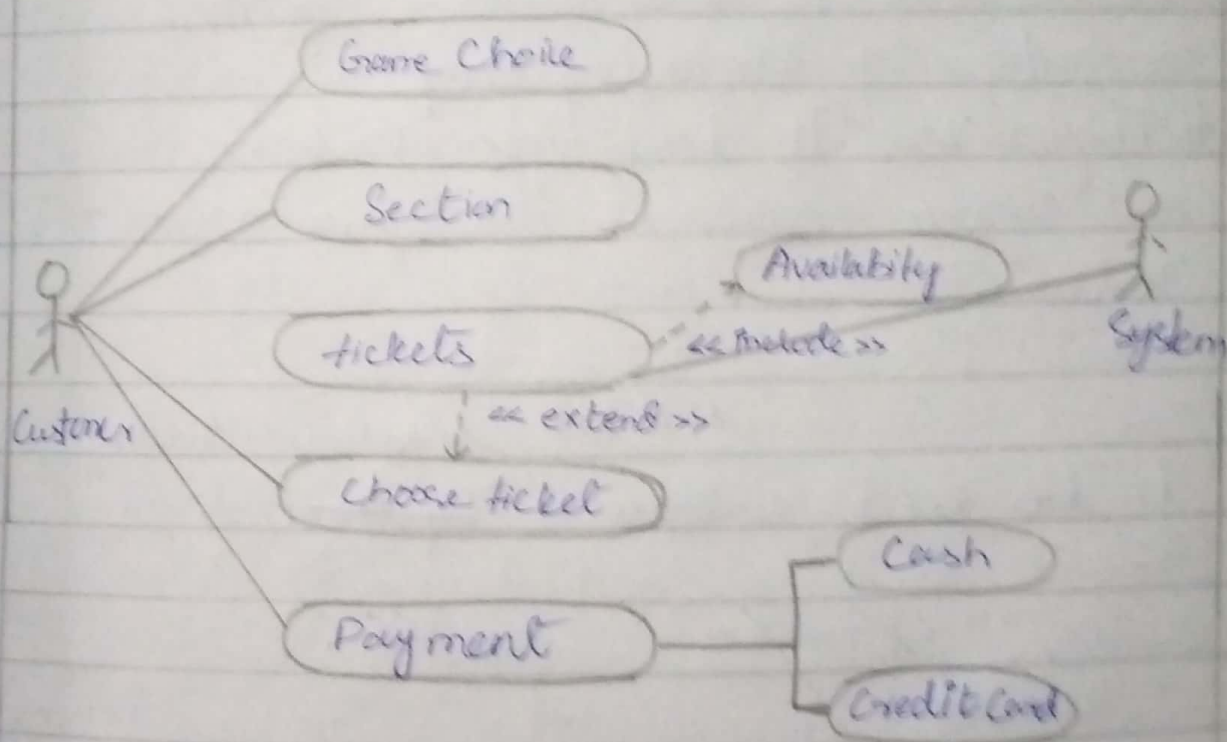
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this can change the requirements.

4). New law and legislation may occur which can cause requirements to change.

(b)

Q # 3
(a)

Answer: The purpose of modeling is to give a high level view of the system that is going to be developed. An Architecture tells about the structure of the system
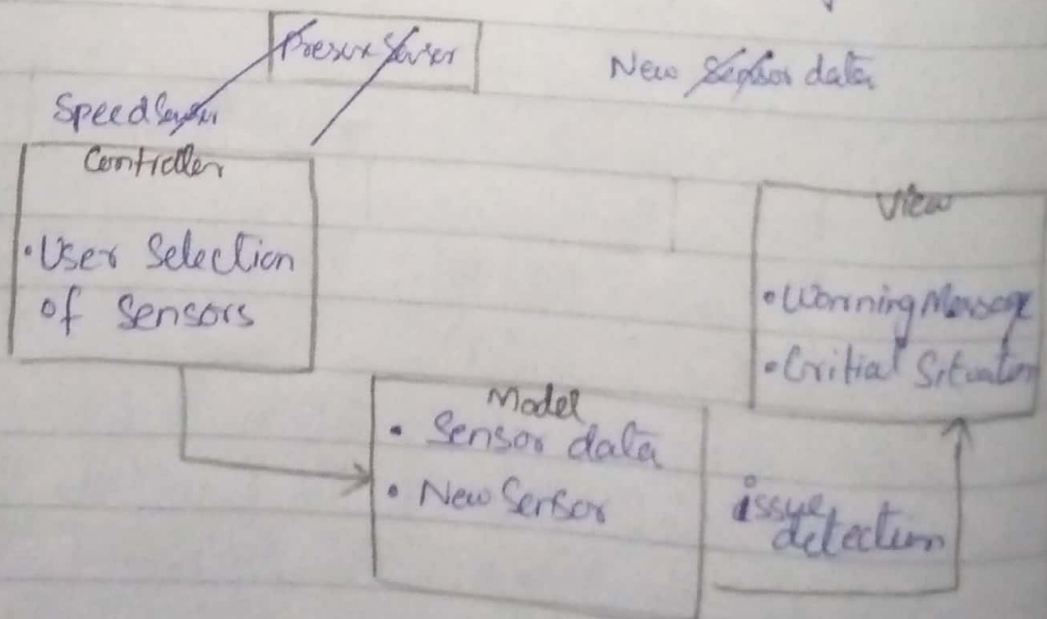
The fundamental architectural views proposed in Kruchen's 4+1 model are:

@ Logical Views: which tell abstraction of system.

ⓑ Development Views: which show the software decomposition for development.

© Process Views: It show runtime system composition of interacting components process.

ⓓ Physical Views: It show system hardware and system component distribution accross system.

(b)

i- The most suitable is "~~Repository~~ Model View Controller Architecture"

ii-

Pressure Server

New Sensor data

Speed Sensor
Controller

• User Selection
of Sensors

View

• Warning Message
• Critical Situation

Model
• Sensor data
• New Sensor

issue detection

iii). Advantage: The data of sensors are independent on each other.
Disadvantage: New data checkin not available.

(c)

Answer: To analyse the mandatory and optional choices, Design Model is the most suitable model because it incorporates data and Derived from analysis model of requirement. For design purpose, we will use Golden rules number 2 to reduce User Memory load.

Q # 4
(a)

Answer: Inspection is done to find defects. It is widely used because it doesn't require execution of the whole system, therefore it can be done before implementing components. Inspection can be done on any representation of system. The Errors which are unlikely to be discovered are the non-functionality, security, safety, performance of the system as it require the whole system to be run.

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(b)

Answer: Quality Management and Software development Process as can be relate as quality management is concerned to get the quality in product. It provide independent check on software development process.
It ensure that the project in development process must meet the organizational standards.

(c)

Answer: In object testing, the complete test of class is done. Testing of all the operation within object. Testing of all the attributes of object. Testing the required output by giving improper inputs. Testing of polymorphism and inheritance.
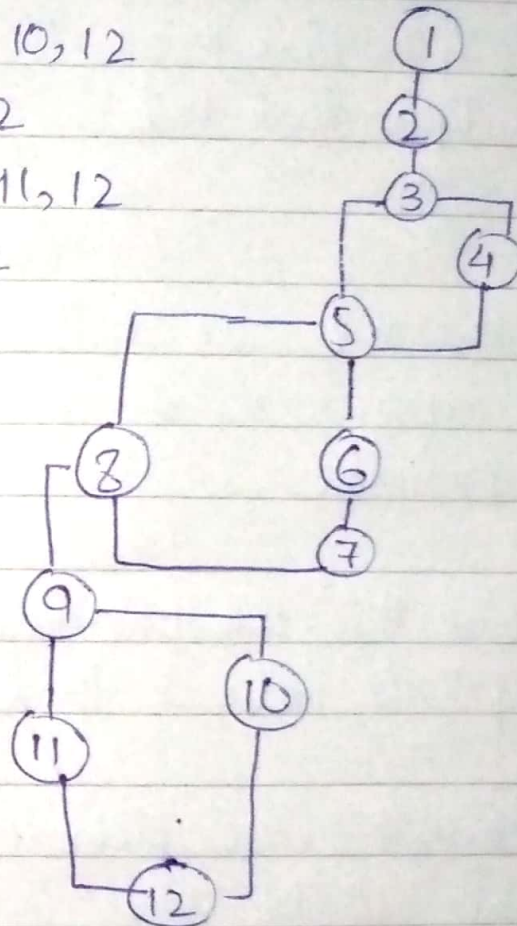
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(d)

Path testing:-
- 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12
- 1, 2, 3, 4, 5, 8, 9, 10, 12
- 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12
- 1, 2, 3, 4, 5, 8, 9, 11, 12
- 1, 2, 3, 5, 8, 9, 10, 12
- 1, 2, 3, 5, 8, 9, 11, 12
- 1, 2, 3, 5, 6, 7, 8, 9, 10, 12
- 1, 2, 3, 5, 6, 7, 8, 9, 11, 12

Q # 5

(a)

Risk # 1: Internet Provider didnot read enquiry and did not put in database

Risk # 2: VPN doesnd provide plan for new electronic devices

Risk # 3: Utilized error email with different organizational in its supply chain

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(b)

Priority 1: Risk #1
Priority 2: Risk #3
Priority 3: Risk #2

(c)

For Risk #1, we mitigate to highlite
the inquires so it can be clearly read
by provider.

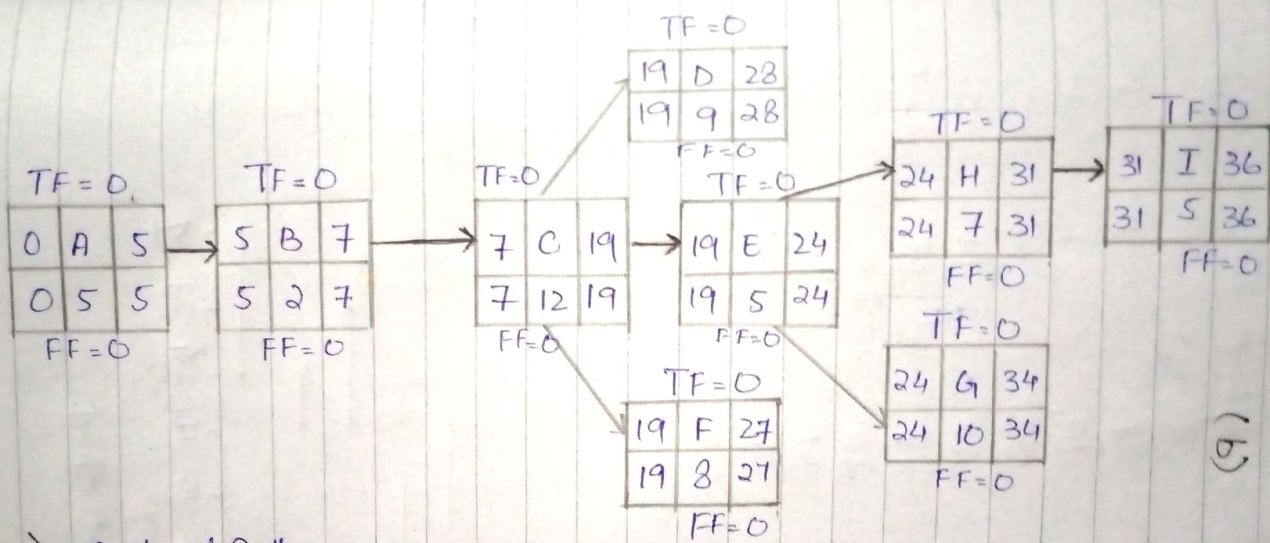For Risk #2, we mitigate the stability
for private network that sends plans

For Risk #3; we mitigate an email verification
which will be send in supply chain

Q #6
(a)

To be successful in project, the project
need:-

1). Complete project on time
2). Project must meet its requirement

TF=0 [0 A 5 / 0 5 5] FF=0

TF=0 [5 B 7 / 5 2 7] FF=0

TF=0 [7 C 19 / 7 12 19] FF=0

TF=0 [19 D 28 / 19 9 28] FF=0

TF=0 [19 E 24 / 19 5 24] FF=0

TF=0 [19 F 27 / 19 8 27] FF=0

TF=0 [24 H 31 / 24 7 31] FF=0

TF=0 [24 G 34 / 24 10 34] FF=0

TF=0 [31 I 36 / 31 5 36] FF=0

iii). Critical Path = A, B, C, E, H, I

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(ii).

	Early Start	Early Finish	Late Start	Late Finish
A	0	5	0	5
B	5	7	5	7
C	7	19	7	19
D	19	28	19	28
E	19	24	19	24
F	19	27	19	27
G	24	34	24	34
H	24	31	24	31
I	31	36	31	36

(iv)
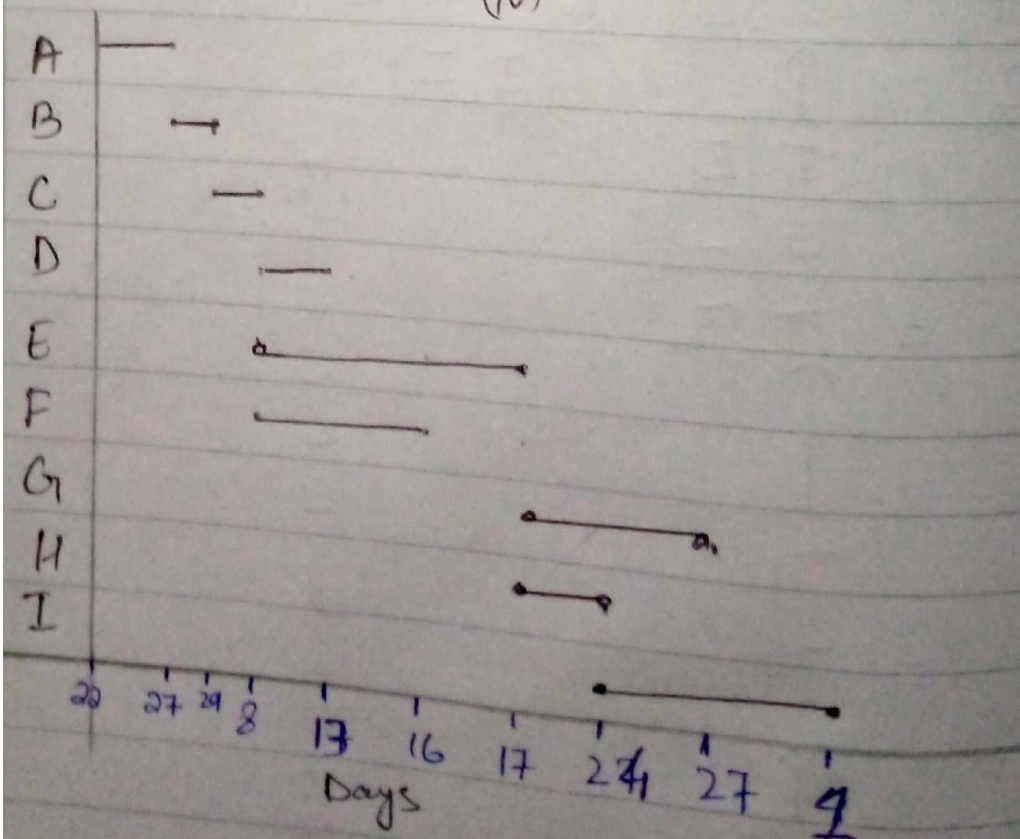
Gantt chart

(c)

Measurement Parameter	Count	Simple	Avg	Complex	Result
1. Input files	11	3 × 4	6		44
2. Output files	11	× 4	5	7	44
3. EQ	7	× 3	4	6	21
4. ILF	22	× 7	10	15	154
5. EIF	6	5 × 7	10		42

Total count = 54   Count total => 305

FP = Σ   [FP = 305]