

Index

	Lecturer Topics	Marks	Signature
1.	Identify the Software Project, Create Business Case, Arrive at a Problem Statement		
2.	Stakeholder and User description, identify the appropriate process model, comparative study with agile model.		
3.	Identify the requirements, system requirements, functional requirements, nonfunctional requirements.		
4.	Prepare project plan based on scope, find job roles and responsibilities, calculate project effort based on resources		
5.	Prepare the work, breakdown structure based on timelines, risk identifications and plan		
6.	Design a system architecture, use case diagram, ER diagram, DFD diagram, class diagram, collaboration diagram,		
7.	State and sequence diagram, deployment diagram, sample frontend design		
8.	Module description ,module implementation using agile.		
9.	Module implementation, scrum master to induce new requirements in agile developments.		
10.	Module implementation, scrum master to induce new issues in agile development.		
11.	Module implementation, scrum master to induce new requirements in agile developments, scrum developments, scrum master to induce new issues in agile development, code documentation.		
12.	Master test planning, test case design		
13.	Manual testing		
14.	User manual, analysis of costing, effort and resources		
15.	Project demo and report submission with the team.		

16.	conclusion		
17.	References		

ONE PAGE BUSINESS CASE TEMPLATE

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 1

THE PROJECT

In bullet points, describe the problem this project aims to solve or the opportunity it aims to develop.

- It guides new and existing learners to do courses based on their interests.
- It is a great platform for absolute beginners.
- For absolute beginners it gives parallel recommendations and links of other websites.
- Even for existing learners also it gives a parallel recommendations based on their working domain.

THE HISTORY

In bullet points, describe the current situation.

- There is no such websites before that show the required courses that are available online for free/paid or certified by any institutions.

LIMITATIONS

List what could prevent the success of the project, such as the need for expensive equipment, bad weather, lack of special training, etc.

- Lack of prior knowledge of HTML/CSS/Java script
- Lack of time
- Lack of improper planning

APPROACH

List what is needed to complete the project.

- Data collection should be done from different websites
- Implementation (HTML/Wordpress)
- Needed required resources , web developing tools

BENEFITS

In bullet points, list the benefits that this project will bring to the organization.

- We act as a mediator and generate revenue from the websites which we suggest the user.
- We also generate revenue by displaying adds in our website.

DISCLAIMER

Any articles, templates, or information provided by Smartsheet on the website are for reference only. While we strive to keep the information up to date and correct, we make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability, or availability with respect to the website or the information, articles, templates, or related graphics contained on the website. Any reliance you place on such information is therefore strictly at your own risk.

Problem Statement

Online Course Guide

Project Description:

- Based on the user input data the recommendations are shown via links of different
- websites. Based on the user category we provide recommendations for online courses , the three categories are:
 1. Beginners
 2. Intermediate
 3. Advanced

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 2

Problem Constraints:

- What is the Purpose and Need for the work?
To give better learning experience for users who want to learn online courses.
- What questions need to be answered?
We Provide(answer) the affordable courses for the required domain of user.
- What key issues should be considered?
Collection of data accurately and using the tools efficiently.
- What are the Goals and Objectives of the work?
To guide towards affordable learning for every user.
- Who is the audience?
Anybody who wants to learn.
- What types of useable information and tools are available and practical?

Courses links from other websites like : Udemy, NPTEL, Khan academy and Youtube.

The tools required are: Bootstrap, pycharm.

Schedule, Resource, and Budget Constraints

- What are the Existing Resources?
PC with windows 10 home, Bootstrap, pycharm(community version)
- What is the Feasible Budget?
5000(approx.)
- What are the time constraints that may dictate delivery of work items?
There are no time constraints.
- What is the availability and quality of existing data?
The required data for our project is available and accurate.

How to identify stakeholders?

- Who is affected positively and negatively by the project?
People who are aspiring to learn desired courses are positively affected. No one are negatively affected.
- Who has the power to make it succeed (or fail)?

Developers create and design a user friendly website and has power to make it succeed.

- Who makes the decisions about money?

Project Manager.

- Who are the suppliers?

Various Online courses teaching websites and youtube.

- Who are the end users?

Students and aspiring learners.

- Who has influence over other stakeholders?

Organisation.

- Who could solve potential problems with the project?

Developer's Team.

- Who is in charge of assigning or procuring resources or facilities?

HR or Project Manager.

- Who has specialist skills which are crucial to the project?

Website Developer and website designer.

- User Story 1 (Beginner):

As a SRM university student

I want to learn python course

So that this website guided me to learn Python.

- Acceptance criteria:

It displayed the pre-requisite courses to learn Python.
It displayed various free Youtube video Links.
It displayed various certified courses providing websites.

➤ User Story 2(Intermediate):

As a software employee

I want to learn about Artificial Intelligence

So that this website paved a way for understanding the things that are required to learn AI.

Acceptance Criteria:

It displayed various video links that are related to AI.

It displayed various programming language video links that are related to AI.

• AGILE MODEL:

Definition:

Agile SDLC model is a combination of iterative and incremental process models with focus on process adaptability and customer satisfaction by rapid delivery of working software product. Agile Methods break the product into small incremental builds. These builds are provided in iterations.

• WATERFALL MODEL:

Definition:

The waterfall model is a classical model used in system development life cycle to create a system with a linear and sequential approach. It is termed as waterfall because the model develops systematically from one phase to another in a downward fashion.

• Advantages of waterfall model

It allows for departmentalization and managerial control. •

Simple and easy to understand and use.

Easy to manage due to the rigidity of the model – each phase has specific deliverables and a review process.

Phases are processed and completed one at a time.

Works well for smaller projects where requirements are very well understood.

A schedule can be set with deadlines for each stage of development and a product can proceed through the development process like a car in a car-wash, and theoretically, be delivered on time.

Disadvantage of waterfall model

It does not allow for much reflection or revision. •

Once an application is in the testing stage, it is very difficult to go back and change something that was not well-thought out in the concept stage. •

No working software is produced until late during the life cycle.

High amounts of risk and uncertainty.

Not a good model for complex and object-oriented projects.

Poor model for long and ongoing projects. Not suitable for the projects where requirements are at a moderate to high risk of changing.

COMPARISON BETWEEN AGILE AND WATERFALL MODEL

Agile Model	Waterfall Model
It takes an iterative approach that is derived from Lean thinking and it allows changing the scope of the project	It takes a sequential approach to software development where a project is divided into different phases.
It works well when the scope of the project is unknown.	It works well when the scope of the project is known beforehand.
It allows changes to be made as it starts with a simple design which is divided into small modules.	The contract terms won't allow changes to be made as the process is sequential
Customer availability is important through the entire project.	Customer availability is required only at set milestones.
It allows partial success as valuable features are implemented first thereby decreasing risk of failure.	It doesn't allow partial success which increases the risk of failure.
Products are tested thoroughly for bugs and errors during the development cycle	Testing cannot be done during the development cycle, but only at the end.
It provides flexibility to oversee the development project.	Flexibility is limited as products are based upon documented requirements

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 3

System Requirements

- Required accurate data of all available online courses.
- Creating a secured website using web developing tools like: Bootstrap and Wordpress.
- Easily accessible and coherent user interface (UI) for the end user.
- To design an accurate and efficient search engine for giving best suggestions.
- Use of good domains for hosting.
- The system shall organize courses and display results based on the category.

Functional requirements

- Maintaining the links of online courses which are suggested to the end user.
- If the end user is known to be an absolute beginner then simple level courses will be suggested.
- If the end user is known to be intermediate then moderate level courses will be suggested according to his/her requirement.
- If the end user is known to be advance/specialist then specialized and extraordinary courses will be suggested according to his/her requirement.
- If the end user types a wrong spelling or unknown/unrelated courses apart from engineering then it displays warning or error message to the user.
- If end user wants to learn free courses then links of free online course websites will be suggested.

Non-functional requirements

- The website can be accessed by limited users at a time.
- Only popular websites and Youtube channel links will be suggested to the user.
- Maintenance team will respond only after 24hrs of the complaint registered by the user.
- The company is liable issues associated with the system failures.
- The System shall display the results of the search within 6 seconds .
- The System shall direct to recommended site in seconds.
- The System should make of the safety and will not display any ads with sensitive content.

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 4

Identify Job Roles and Responsibilities

- SUBJECT MATTER EXPERTS (SME): Nitin
- PRODUCT OWNER: Akash, Akhil, Nitin
- PROJECT MANAGER (PM): Akhil
- TECHNICAL LEAD: Akhil
- SOFTWARE DEVELOPERS: Akash
- SOFTWARE TESTERS: Akash
- USER ACCEPTANCE TESTERS: Nitin

Complexity Adjustment Table

ITEM	COMPLEXITY ADJUSTMENT QUESTIONS	SCALE					
		No Influence					Essential
		0	1	2	3	4	5
1	Does the system require reliable backup and recovery?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Are data communications required?	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Are there distributed processing functions?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Is performance critical?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
5	Will the system run in an existing, heavily utilized operational environment?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	Does the system require on-line data entry?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	Does the on-line data entry require the input transaction to be built over multiple screens or operations?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	Are the master files updated on-line?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
9	Are the inputs, outputs, files or inquiries complex?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	Is the internal processing complex?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	Is the code to be designed reusable?	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	Are conversion and installation included in the design?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	Is the system designed for multiple installations in different organizations?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14	Is the application designed to facilitate change and ease of use by the user?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

[Domain Characteristic Table](#) | [FP Calculation](#)

FP Calculation

NOTE: For any updates made on any of the entries, always click the 'Calculate Function Points' button to recalculate function points value.

[Reset / Clear all form entries](#)

[Calculate Function Points](#)

RESULT	
PROJECT FUNCTION POINTS	2297.98

[Top of Page](#) | [Domain Characteristic Table](#) | [Complexity Adjustment Table](#)

Information Domain Values

Measurement Parameter	Count		Simple	Average	Complex		Total
Number of user inputs	3	X	3	4	6	=	9.00
Number of user outputs	10	X	4	5	7	=	40.00
Number of user inquiries	3	X	3	4	6	=	9.00
Number of files	3	X	7	10	15	=	21.00
Number of external interfaces	6	X	5	7	10	=	30.00
Count=Total							109.00

Count Total

Complexity Weighting Factors

// heading of the second table Rate each factor on a scale of 0 to 5:

(0 = No influence, 1 = Incidental, 2 = Moderate, 3 = Average, 4 = Significant, 5 = Essential):

Question	0	1	2	3	4	5
1. Does the system require reliable backup and recovery?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Are data communications required?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Are there distributed processing functions?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Is performance critical?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Will the system run in an existing, heavily utilized operational environment?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Does the system require on-line data entry?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Does the on-line data entry require the input transaction to be built over multiple screens or operations?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Are the master file updated on-line?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Are the inputs, outputs, files, or inquiries complex?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Is the internal processing complex?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Is the code designed to be reusable?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Are conversion and installation included in the design?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Is the system designed for multiple installations in different organizations?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Is the application designed to facilitate change and ease of use by the user?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total						
.0						

Show Total of weighting Factor

The Function Points is:

Step 3: You have to find LOC (Lines of Code), and you do this by choosing a programming language that you will using when developing a project:

Programming Language	LOC/FP (average)	Select
Assembly Language	320	<input type="radio"/>
C	128	<input type="radio"/>
COBOL	105	<input type="radio"/>
Fortran	105	<input type="radio"/>
Pascal	90	<input type="radio"/>
Ada	70	<input type="radio"/>
Object-Oriented Languages	30	<input checked="" type="radio"/>
Fourth Generation Languages (4GLs)	20	<input type="radio"/>
Code Generators	15	<input type="radio"/>
Spreadsheets	6	<input type="radio"/>
Graphical Languages (icons)	4	<input type="radio"/>

LOC/FP:

Step 4: Final Step is to select complexity of the software project:

Software Project	a_b	b_b	c_b	d_b	Select
Organic	2.4	1.05	2.5	0.38	<input checked="" type="radio"/>
Semi-detached	3.0	1.12	2.5	0.35	<input type="radio"/>
Embedded	3.6	1.20	2.5	0.32	<input type="radio"/>

$$\text{Effort (E)} = a_b(\text{KLOC})^{b_b} = \text{5.30} \quad \text{Duration (D)} = c_b(E)^{d_b} = \text{4.71}$$

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 5

WBS Outline

- 0.0 Retail Web Site
- 1.0 Project Management
- 2.0 Requirements Gathering
- 3.0 Analysis & Design
- 4.0 Site Software Development
 - 4.1 HTML Design and Creation
 - 4.2 Backend Software
 - 4.2.1 Database Implementation
 - 4.3 Frontend software
 - 4.4 Graphics and Interface
 - 4.5 Content Creation
- 5.0 Testing and Production

Timelines Task Timeperiod

- 1.Retail Web Site – 1 week
- 2.Project Management – 1 week
- 3.Requirements Gathering – 1 week
- 4.Analysis & Design – 1 week
- 5.Software Development – 4weeks
6. Testing and Production – 4weeks

Risk Identification

- Finishing the project in particular time period
- Providing accurate suggestions

- Maintaining the database
- Maintaining the site software
- Creating awareness on our website

SWOT Analysis

Strengths

- Relevant and unique content
- User friendly design
- No Competitors
- Quick sign up and check out process

Weakness

- Poor content and images
- Long subscription process
- Poor mobile optimization
- Poor hosting service

Opportunities

- New technologies
- Innovative marketing strategies
- Gathering good knowledge about multiple online courses
- Recommending present trend online courses to users

Threats

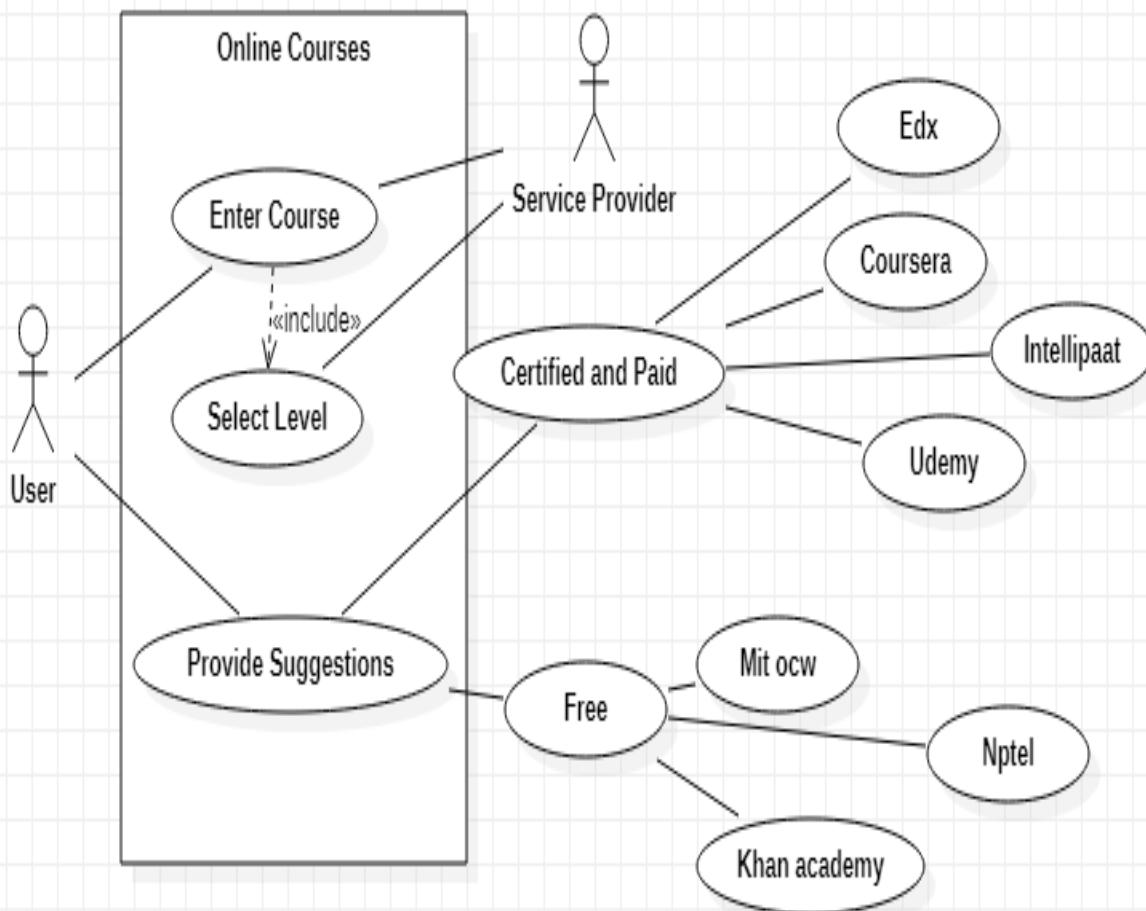
- New entrants(websites)
- Poor government policies
- Software piracy
- Fraudulent activities

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide

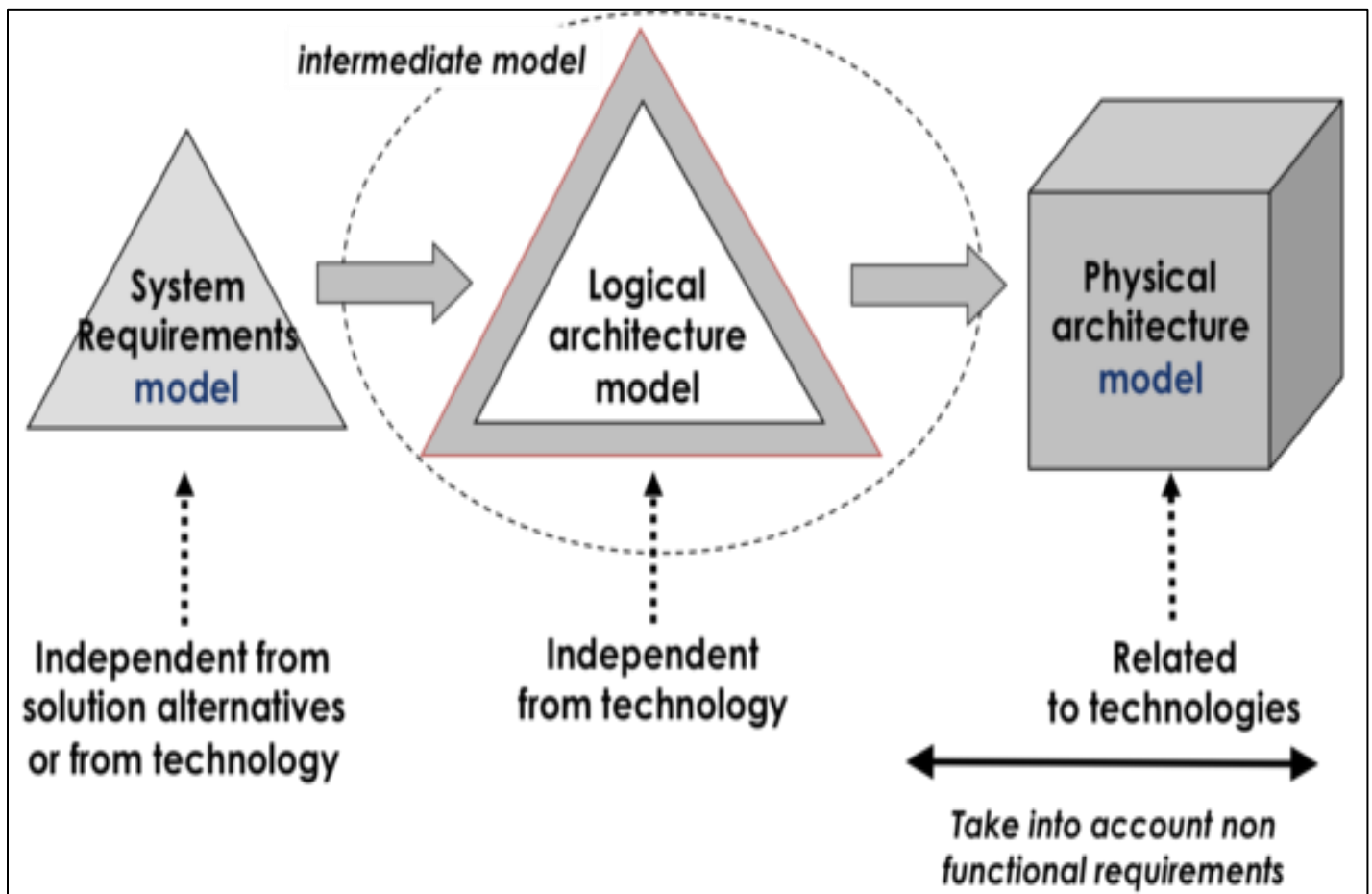


Session 6

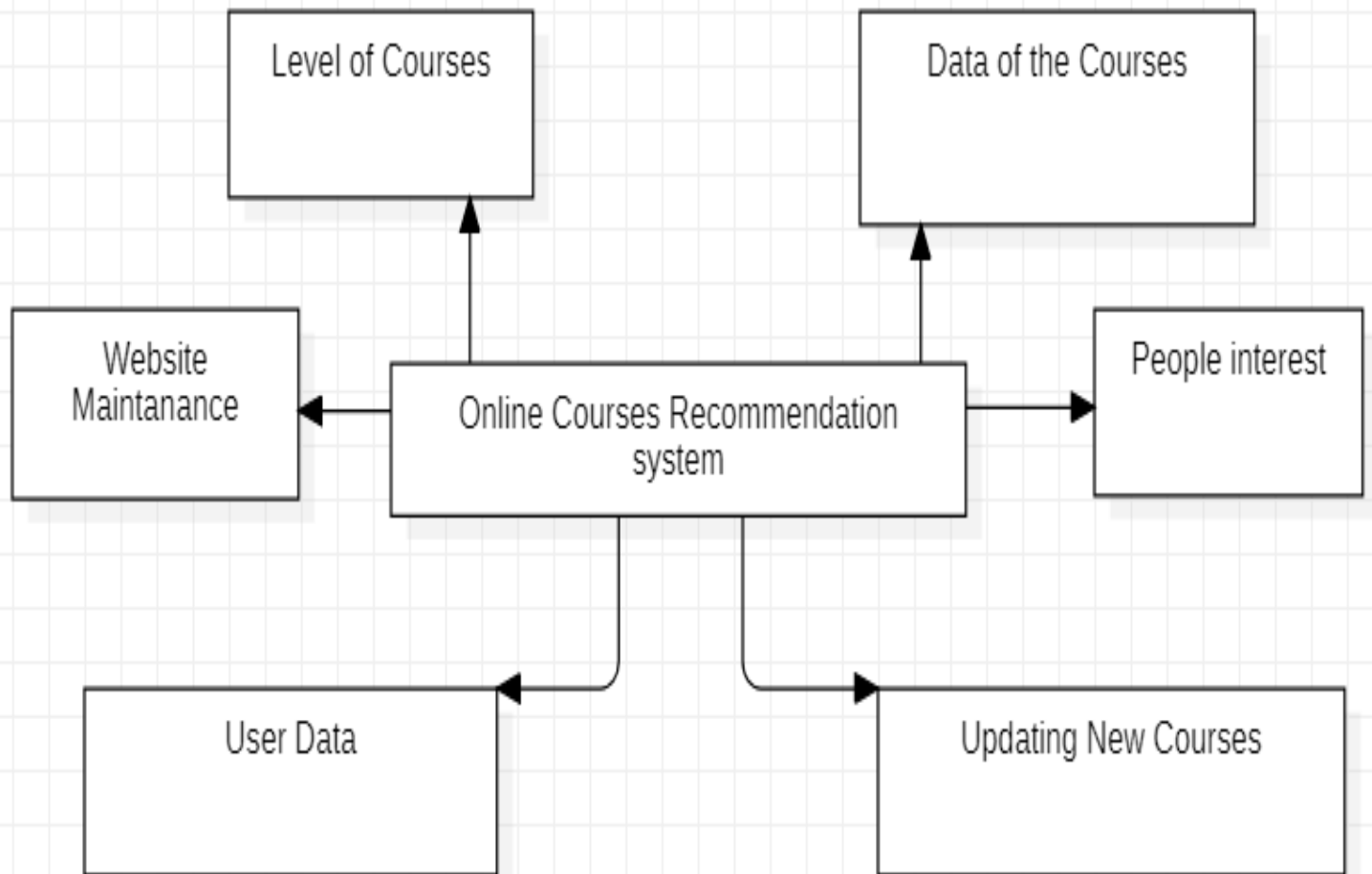
Use case diagram



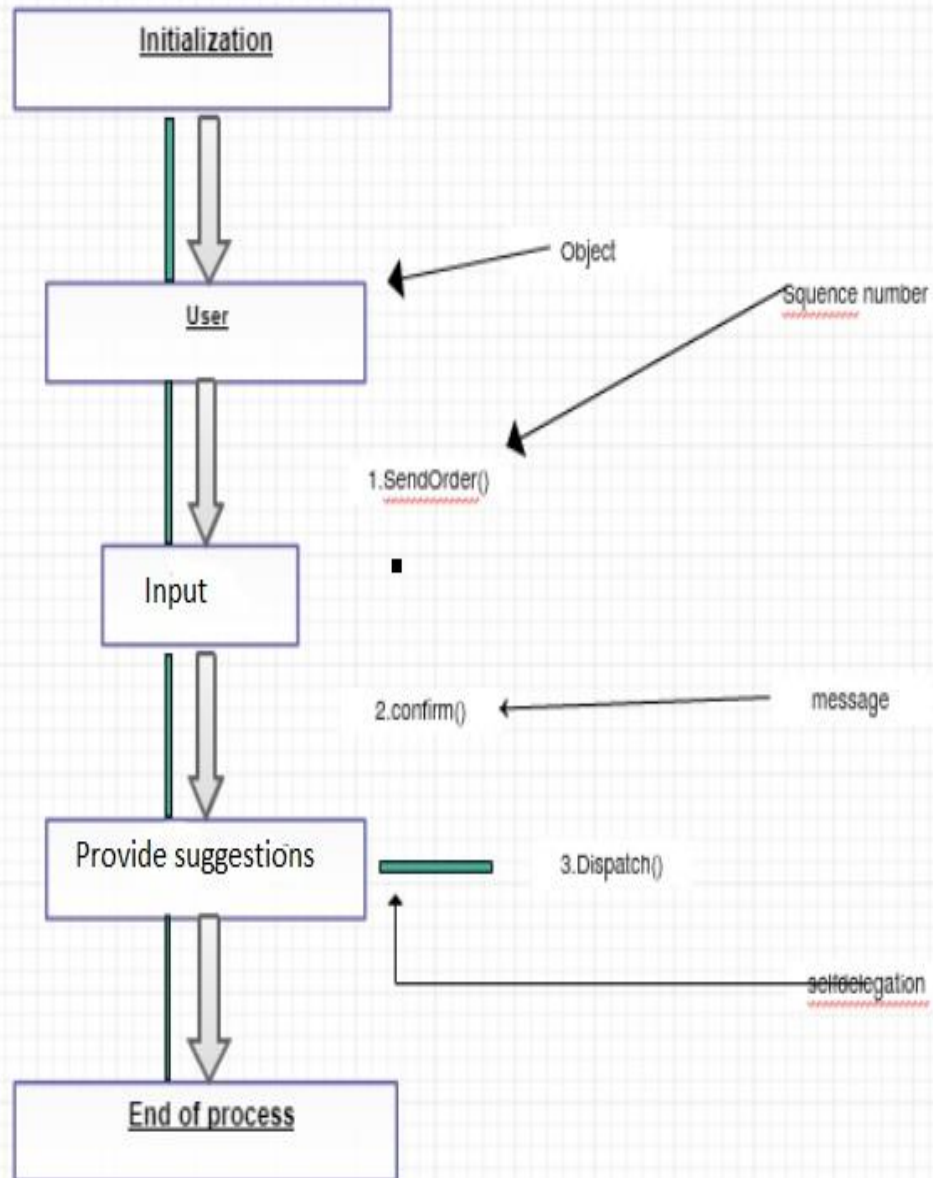
SYSTEM DESIGN ARCHITECTURE



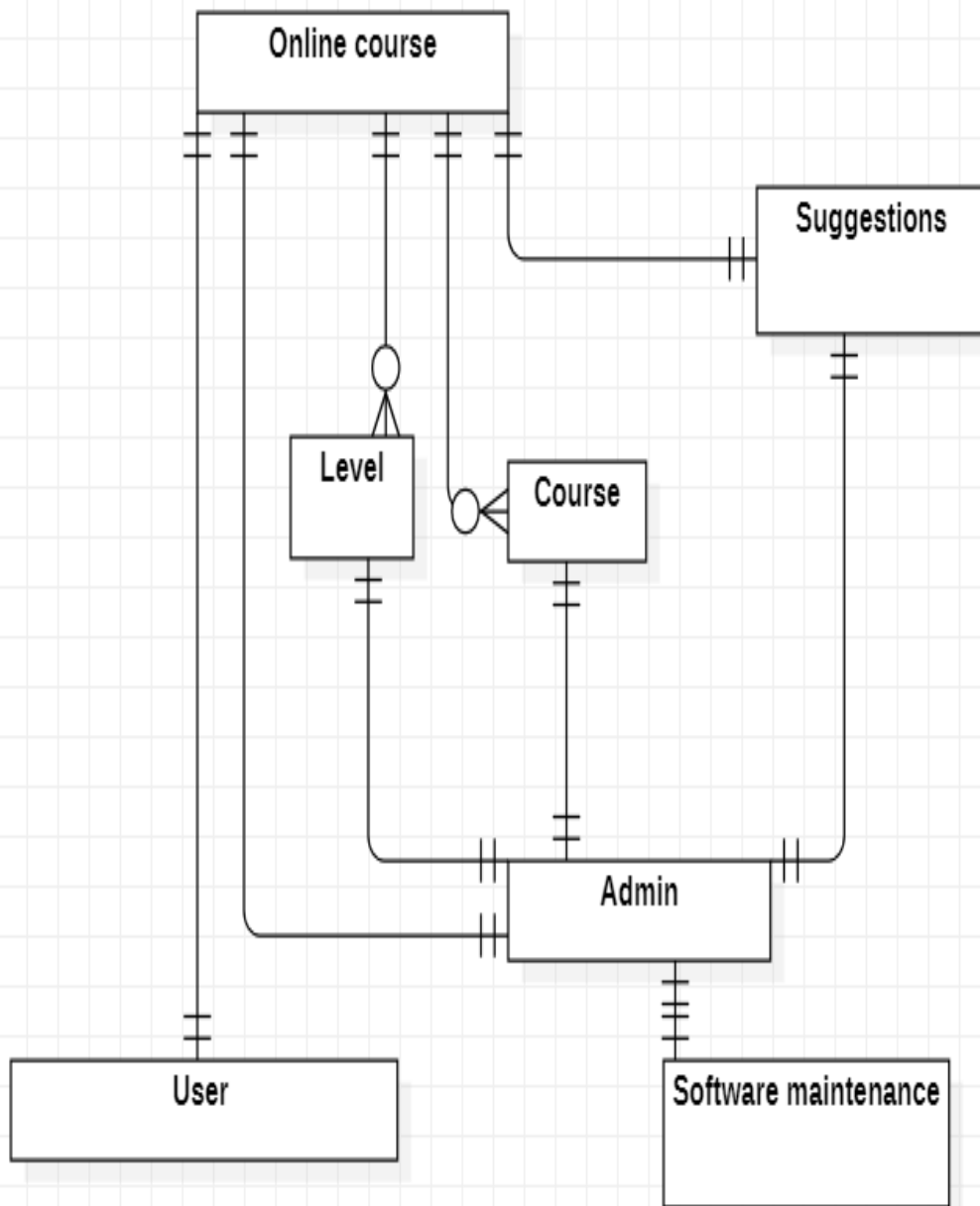
DATA FLOW DIAGRAM



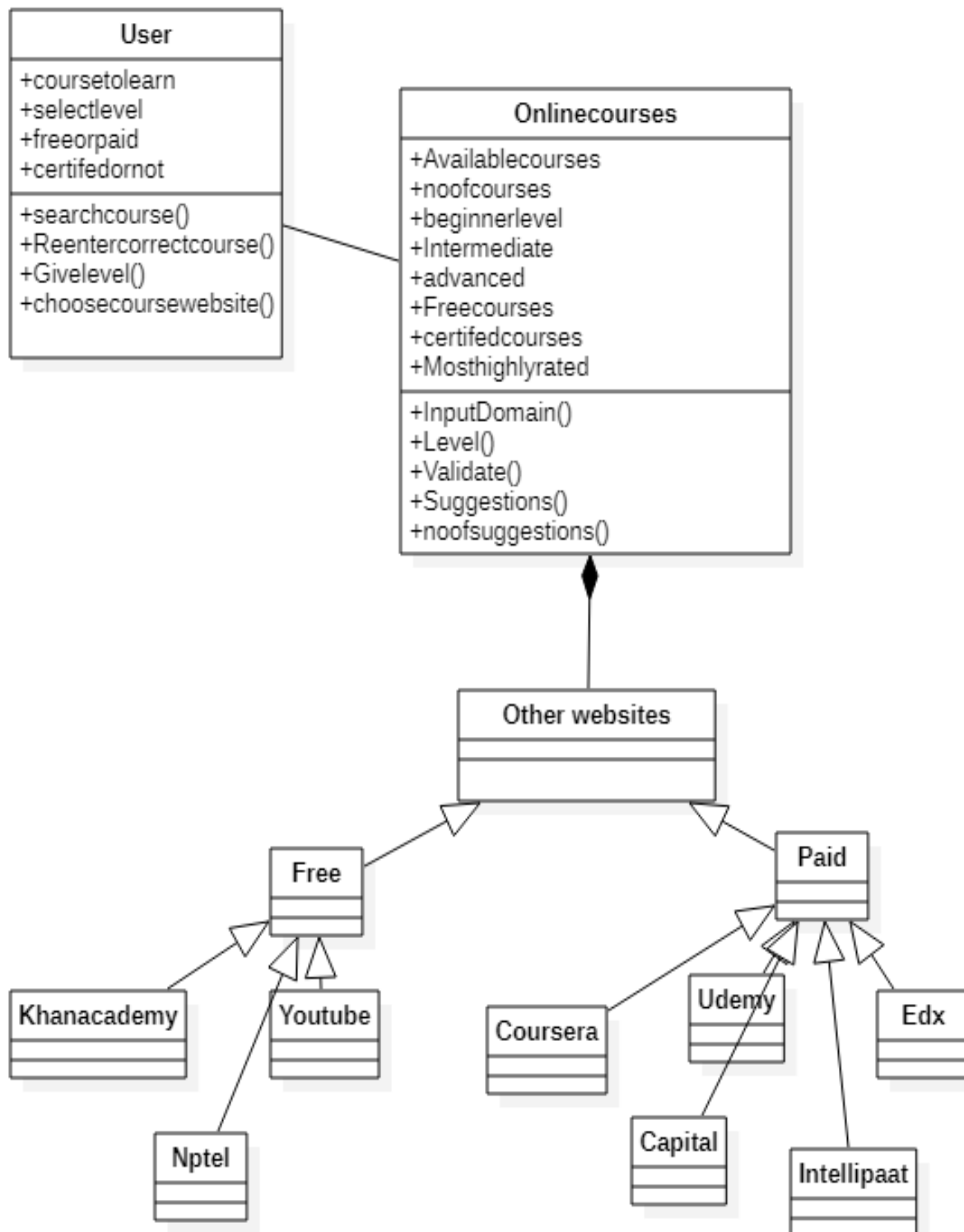
Collaboration diagram



ER Diagram



Class diagram



DATE

SUBMITTED BY

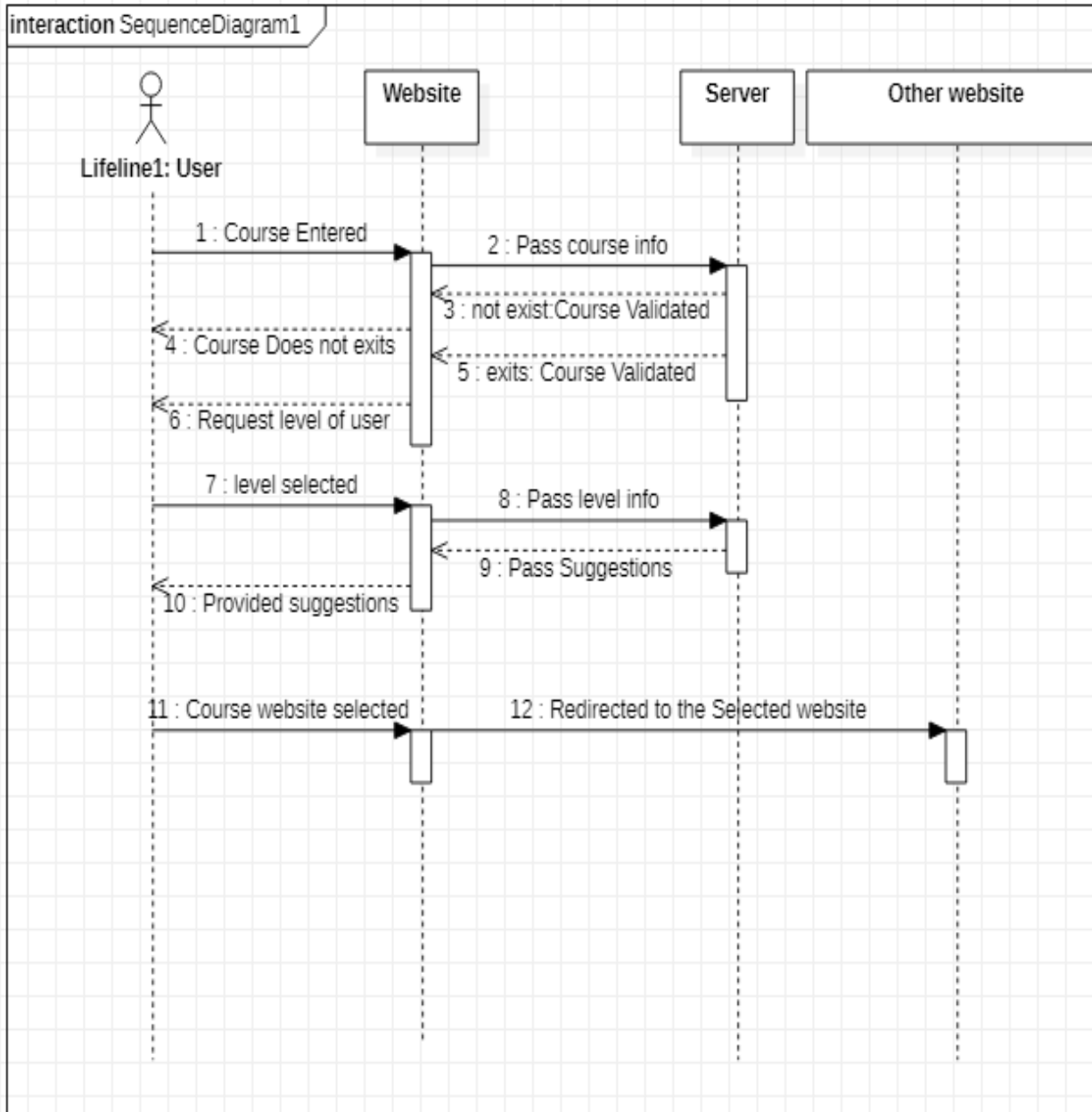
RA1811027020034 Nitin Choudhary V H
RA1811027020004 Akhil Reddy J
RA1811027020050 Akash Katuri

TITLE / ROLE

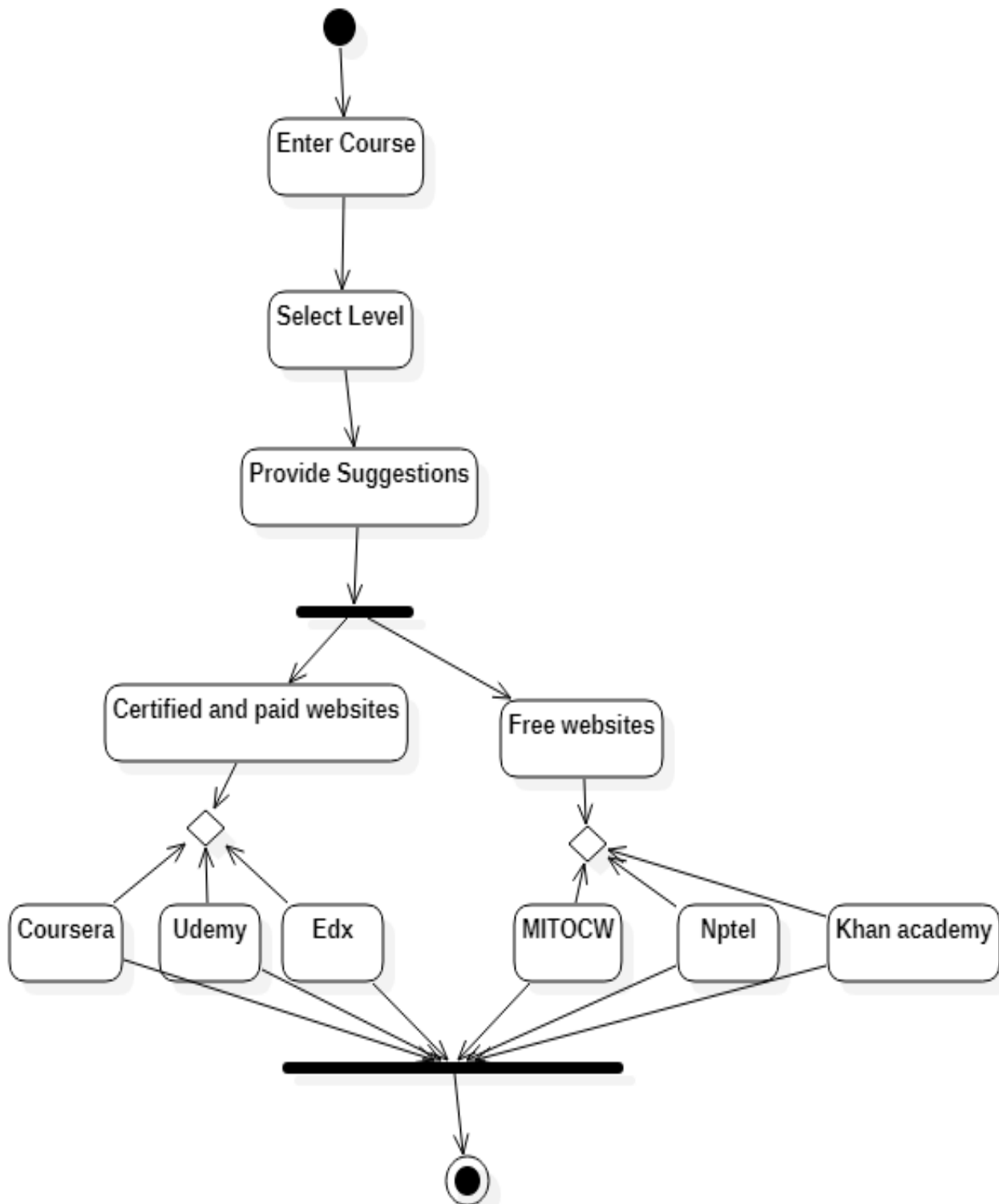
Online Course Guide

Session 7

Sequence diagram



State diagram



Login

Please login to redirect

Username:

Password:

Level:

Terms and conditions: ☐



DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 8

Module description ,module implementation using agile.

Modules Description:

- **Name:** The user inputs his name so that further updates can be addressed using his name.
- **E-mail:** The e-mail provided by user can be used to forward important updates or sometimes the unavailable courses on our database.
- **Mobile:** To get feedback of our services we opt a phone call with our user.
- **Type:** The courses are categorized into categories like free, paid, certified.
- **Level:** This provides us with the coding background of the user which helps us to provide a course based on his learning experience.

- **Search Course:** This is the input that finds the exact course that the user wants to learn.

Module implementation using agile:

Agile: Agile Model is an incremental delivery process where each incremental delivered part is developed through an iteration after each time box. The main principle of the agile model is to achieve agility by removing unnecessary activities that waste time and effort.

In agile model end date for an iteration is fixed, it cannot be changed. The development team may have to decide to reduce the delivered functionality to complete that iteration on time.

USING AGILE:

- ❖ Since the front end modules are fixed and there is no registration process in our project, the only iterative modules are the design of the webpage and the backend programming to improve the accuracy of the search results.

- ❖ The implementation using agile can be done by verifying the search results for various inputs and then finally getting accurate results.
- ❖ The design maybe modified in such a way that it becomes more user friendly and new updates are given to the users through text messages and mail.
- ❖ The search algorithms should be accurate and show best results even if there is obscurity in the input.

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 9

Module implementation, scrum master to induce new requirements in agile developments.

Search your course screen:

SEARCH YOUR COURSE

Name:

Email:

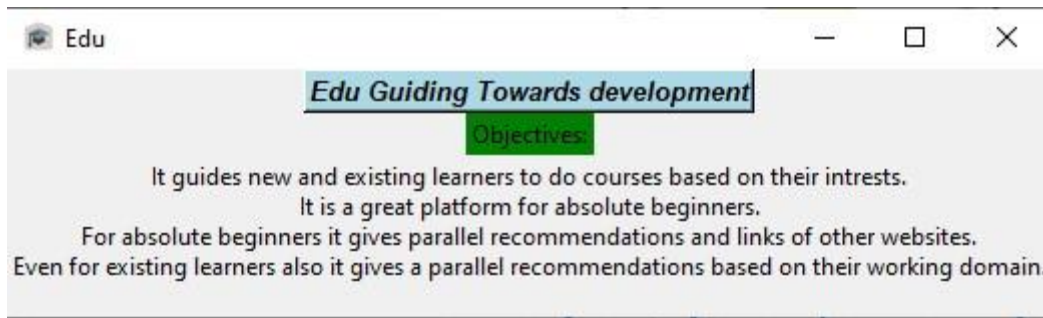
Mobile:

Type:

Level:

Search Course:

Objectives:



Results based on Your search Input:

The Recommended Courses are							
1	IBM Applied AI Professional Certificate	1	https://www.coursera.org/professional-certific...	1	Beginner	1	Paid
2	AI For Everyone	2	https://www.coursera.org/learn/ai-for-everyone	2	Beginner	2	Paid
3	IBM Applied AI Professional Certificate	3		3	Beginner	3	Paid
4	AI Foundations for Everyone Specialization	4	https://www.coursera.org/professional-certific...	4	Beginner	4	Paid
Name: Title, dtype: object		Name: Link, dtype: object		Name: Level, dtype: object		Name: Type, dtype: object	

Scrum Master Role:

The responsibilities of this role include:

- Clearing obstacles
- Establishing an environment where the team can be effective
- Addressing team dynamics
- Ensuring a good relationship between the team and product owner as well as others outside the team
- Protecting the team from outside interruptions and distractions.

Clearing Obstacles:

The results accuracy should be increased by every iteration

Establishing an environment where the team can be effective:

The team should be provided with required materials and a good internet connection to get effective results.

Addressing team dynamics:

- 1.know your **team**.
- 2.Tackle problems quickly with good feedback.
- 3.Define roles and responsibilities.
- 4.Break down barriers.
- 5.Focus on communication.

Ensuring a good relationship between the team and product owner as well as others outside the team:

As we are the owners of the product, we need to improve good relationship with others outside the team to clear the doubts in backend programming.

Protecting the team from outside interruptions and distractions:

The team shouldn't have any distractions from the outsiders as it may affect the delivery date of the project and chance of error rectification may be neglected.

New Requirements:

- Mobile based website to increase the user approachability of the project.
- Quick responsive algorithm for accurate results.
- Providing customer care services for advices in what course they should select.
- Providing the links of webinars, online conferences and online interactive sections to help the users to choose a better course.

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



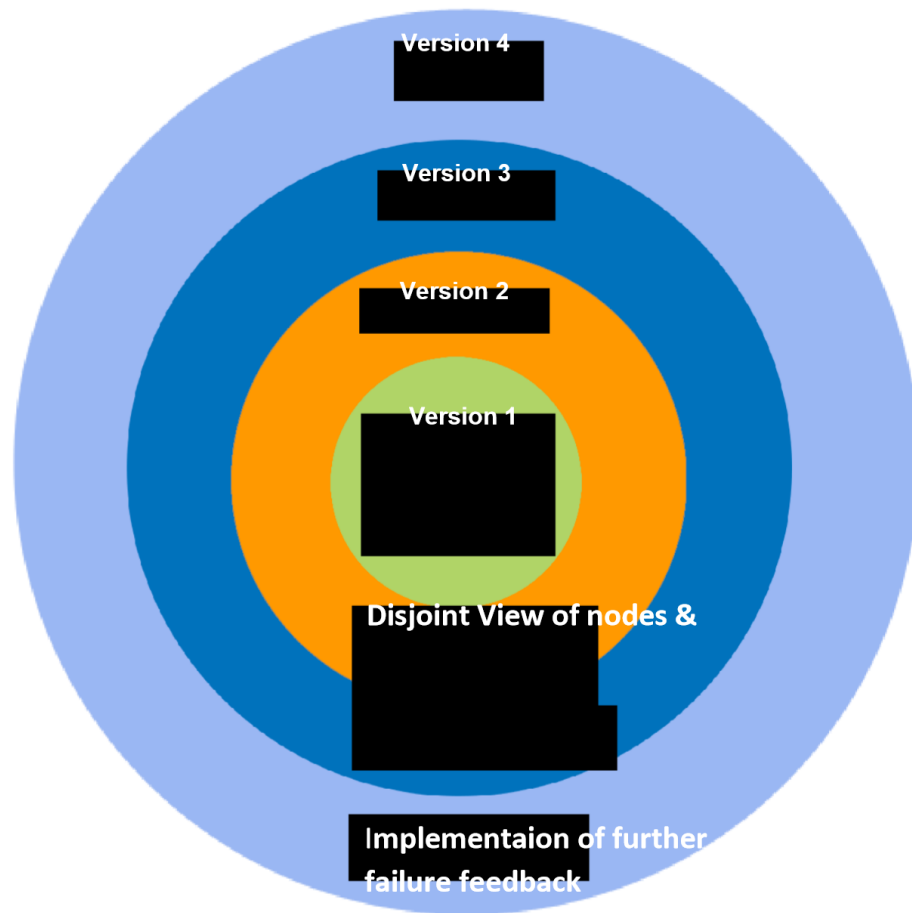
Session 10

Module implementation, scrum master to induce new issues in agile development.

New issues:

1. Issue of showing best course for the typed input because of the obscurity of the input.
2. Website optimization for different devices.
3. Unable to receive mails which contains the courses that are not updated in the database.
4. Unable to provide links of webinars of top lecturers who may suggest best courses for the users.
5. An issue raised by user to stop receiving text messages and mails.
6. Unable to contact us to rectify their doubts.

Process Model: Incremental-Model



DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session-11

Module implementation, scrum master to induce new requirements in agile developments, scrum developments, scrum master to induce new issues in agile development, code documentation.

```
from tkinter import*
from tkinter import messagebox
from tkinter import Tk, mainloop, TOP
import time
from tkinter.ttk import Combobox
def recomm():
    win2=Tk()
    win2.title("The Recommended Courses are")
    df = pd.read_csv('cour.csv')
    df=df[['Area','Title','Course site', 'Type',
'Level', 'description ',
'skills gained','Link']]
    features=['Area','Title','Course site',
'Type', 'Level', 'description ',
'skills gained','Link']
    for x in features:
        df[x]=df[x].fillna(' ')
    from sklearn.feature_extraction.text import
TfidfVectorizer
```

```

tfidf = TfidfVectorizer(stop_words='english')
tfidf_matrix = tfidf.fit_transform(df)
from sklearn.metrics.pairwise import
linear_kernel
cosine_sim = linear_kernel(tfidf_matrix,
tfidf_matrix)
indices = pd.Series(df.index,
index=df['Title']).drop_duplicates()
def content_recommender(title,
cosine_sim=cosine_sim, df=df, indices=indices):
    idx = indices[title]
    sim_scores =
list(enumerate(cosine_sim[idx]))
    sim_scores = sorted(sim_scores,
key=lambda x: x[1], reverse=True)
    j=0
    sim_scores = sim_scores[1:5]
    course_indices = [i[0] for i in
sim_scores]

Label(win2, text=df['Title'].iloc[course_indices])
.grid(column=0)

Label(win2, text=df['Link'].iloc[course_indices], u
nderline=0).grid(column=1, row=j)

Label(win2, text=df['Level'].iloc[course_indices])
.grid(column=2, row=j)

Label(win2, text=df['Type'].iloc[course_indices]).
grid(column=3, row=j)
    time.sleep(2)
    j=j+1

content_recommender(en.get())

```

```
win2.mainloop()

win=Tk()
win.geometry('600x600')

win.title("Online Course Recommender")
label=Label(win,bg="LightBlue",fg="Black",text="Enter The Course Name",relief="raised",font="Helvetica 10 bold italic",
            )
label.grid(row=1,column=0)

one=StringVar()
en=Entry(win,textvariable=one)
en.grid(row=1,column=1)
but=Button(win,text="Start",command=recomm,bg="Green",fg="White")
but.grid(row=10,column=0)
but2=Button(win,text="Exit",command=win.destroy,bg="Red",fg="White")
but2.grid(row=10,column=3)
data=['Begginer','Intermediate','Advanced']
cb=Combobox(win,values=data)
cb.grid(row=4,column=0)
Label(win,text="Select Level").grid(row=3,column=0)

win.mainloop()
```

Online Course Recommender

Enter The Course Name

Artificial Intelligence (4

Select Level

Beginner

Start

Exit

Edu

Edu Guiding Towards development

Objectives:

It guides new and existing learners to do courses based on their intrests.

It is a great platform for absolute beginners.

For absolute beginners it gives parallel recommendations and links of other websites.

Even for existing learners also it gives a parallel recommendations based on their working domain.

The Recommended Courses are

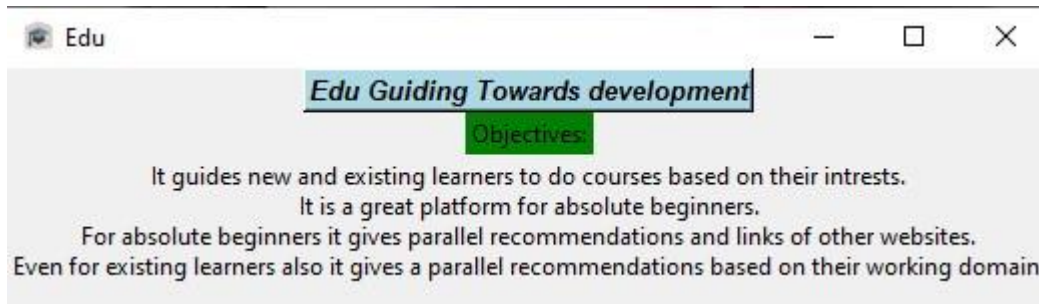
1	IBM Applied AI Professional Certificate	1	https://www.coursera.org/professional-certific...	1	Beginner	1	Paid
2	AI For Everyone	2	https://www.coursera.org/learn/ai-for-everyone	2	Beginner	2	Paid
3	IBM Applied AI Professional Certificate	3		3	Beginner	3	Paid
4	AI Foundations for Everyone Specialization	4	https://www.coursera.org/professional-certific...	4	Beginner	4	Paid

Name: Title, dtype: object

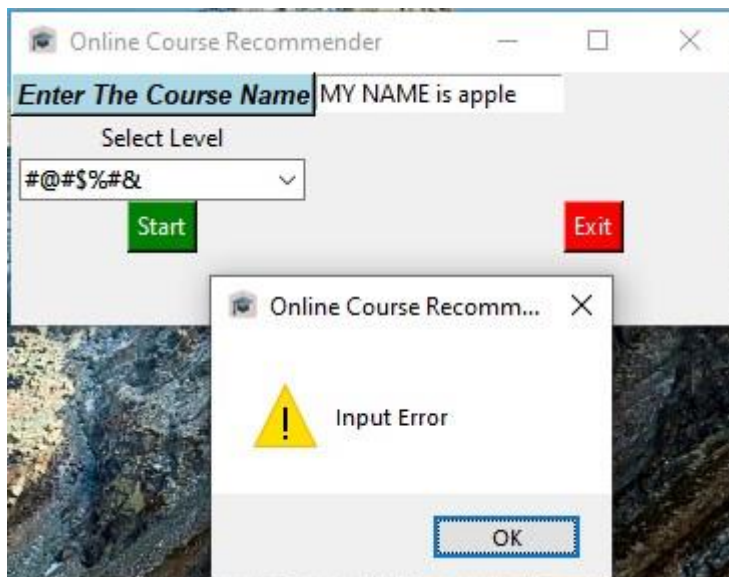
Name: Link, dtype: object

Name: Level, dtype: object

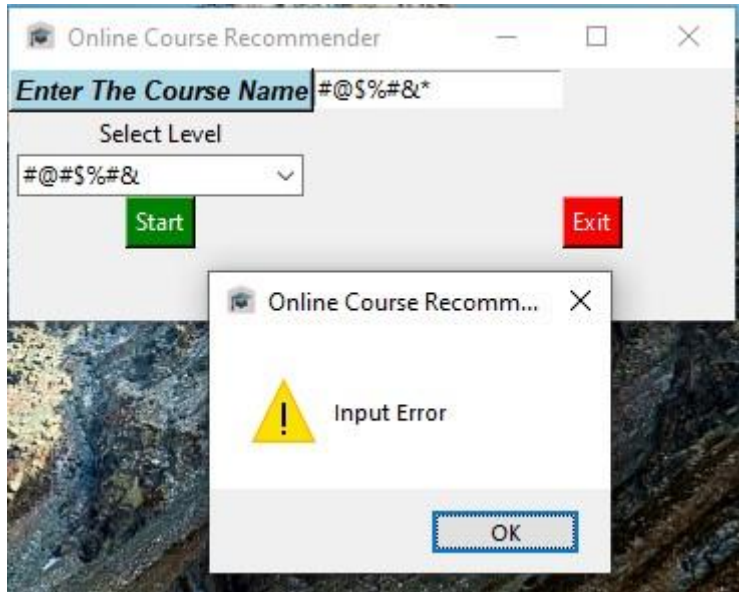
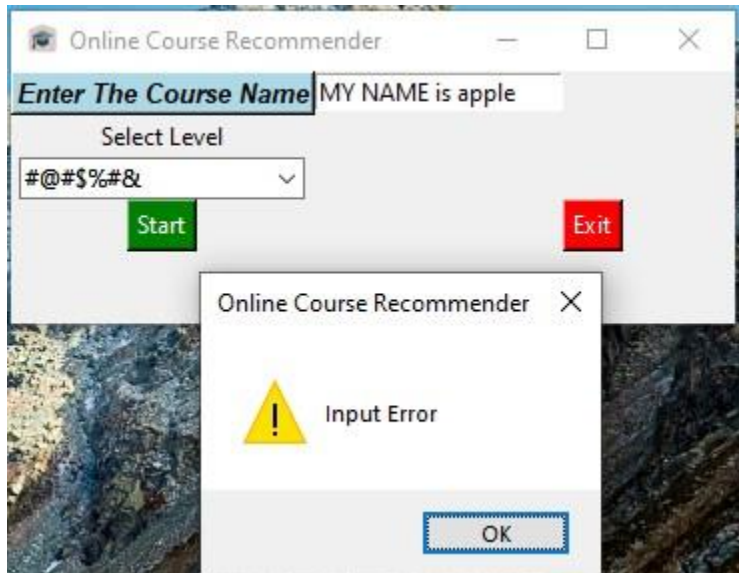
Name: Type, dtype: object



READ MORE testcase:



Entering Special characters,strings ,Spaces,



DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide

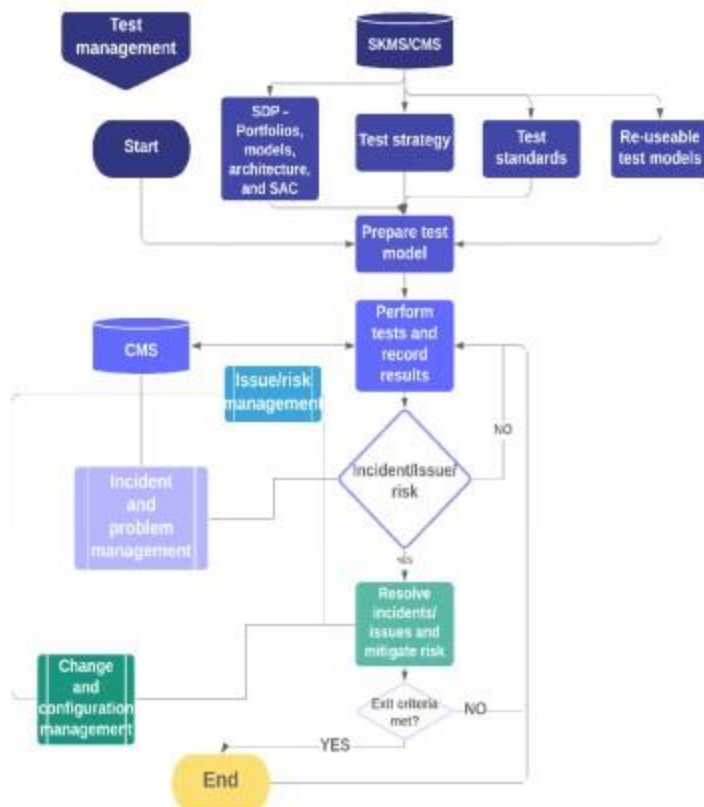


Session 13

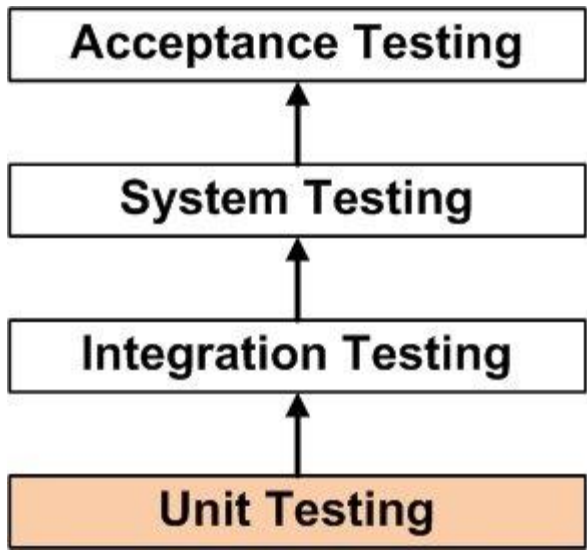
Entering the correct course:



The Recommended Courses are			
TITLE	LINK	LEVEL	TYPE
Introduction to Artificial Intelligence (AI)	https://www.coursera.org/learn/introduction-to-ai	Beginner	Paid
Machine Learning for Business Professionals	https://www.coursera.org/specializations/deep-learning	Intermediate	Paid
IBM Applied AI Professional Certificate	https://www.coursera.org/professional-certificates/applied-artificial-intelligence-ibm-watson-ai	Beginner	Paid
AI Foundations for Everyone Specialization	https://www.coursera.org/professional-certificates/applied-artificial-intelligence-ibm-watson-ai	Beginner	Paid



UNIT TESTING is a level of software testing where individual units/ components of a software are tested. The purpose is to validate that each unit of the software performs as designed. A unit is the smallest testable part of any software. It usually has one or a few inputs and usually a single output. In procedural programming, a unit may be an individual program, function, procedure, etc. In object-oriented programming, the smallest unit is a method, which may belong to a base/ super class, abstract class or derived/ child class. (Some treat a module of an application as a unit. This is to be discouraged as there will probably be many individual units within that module.) Unit testing frameworks, drivers, stubs, and mock/ fake objects are used to assist in unit testing.



DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 14

User Manual

Step1: Login with user account or Sign up to create a new account.

Step2: Select type, whether the required course is free or paid.

Step3: Select level, whether the required level is Beginner or Intermediate or Advance or Mixed.

Step4: Search the required course.

Step5: The required course is recommended through links of various learning platforms, click the link to start the course.

Search the required course

Type: Level:
Search:



Analysis of costing

- Website license – 2500 Rs
- Collection of Raw Data – 1000 Rs
- Testing – 500 Rs
- High speed internet – 1000 Rs

Total = 5000 Rs

Effort and Resources

- Required minimum of 10 employees.
- High speed internet connectivity.
- PC's with at least of intel i5 processors.
- Time period of at least 20 to 30 days.
- Web developing tools.
- Coding tools.

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 15

Project Demo

Step1: Login

Login

Please login to redirect

Username: Password:

Level:

Terms and conditions: ☐



Step2: Search

Search the required course

Type: Level:

Search:



Step3: Result

Search the required course

Type: Level:

Search:

<https://www.udemy.com/course/artificial-intelligence-az/>

<https://www.coursera.org/learn/ai-for-everyone>

<https://www.youtube.com/watch?v=JMUxmLyrhSk>

<https://www.khanacademy.org/humanities/ap-art-history/global-contemporary-apah/21st-century-apah/v/ai-weiwei>



The above images shows the Demo of the website.

This is how our website works and recommends users with valuable courses to start their carrier. So, we conclude that we have finished our project within the time period given for us.

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 16

Conclusion

In this final chapter, the final evaluation and conclusion will be performed on the testing and analyzing process that done in previous chapter including seminar linkage, strengths, weakness and future enhancement of the Online course guide. In addition, personal reflection also include in final part of this chapter.

DATE	
SUBMITTED BY	RA1811027020034 Nitin Choudhary V H RA1811027020004 Akhil Reddy J RA1811027020050 Akash Katuri
TITLE / ROLE	Online Course Guide



Session 17

REFERENCES:

- DotNetSpider. 2005. We will design – you develop it. Viewed on 6 September 2010. Available From <http://www.dotnetspider.com/projects/7-Library-Management-System.aspx>
- Kenhamady. 2008. Ken's Quick Reference to Crystal Report in VB.NET. Viewed on 11 Feb 2011. Available From <http://www.kenhamady.com/ntref.html>
- Java2s. 2008. Graphics.DrawString. Viewed on 8 January 2011. Available From <http://www.java2s.com/Tutorial/VB/03002D-Graphics/GraphicsDrawString.htm>
- VbdotNetHeaven. 2004. How do I send Email using VB.NET. Viewed on 11 Feb 2011. Available From http://www.vbdotnetheaven.com/Uploadfile/prvn_131971/mailvb11172005000829AM/mailvb.aspx
- VbdotNetHeaven. 2004. Multi Column Listview Control in VB.NET. Viewed on 4 August 2010. Available From <http://www.vbdotnetheaven.com/Uploadfile/mahesh/MultiColumnListViewControl04252005023924AM/MultiColumnListViewControl.aspx>
- VBforum. 2006. Email Validation Function. Viewed on 4 August 2010. Available From <http://www.vbforums.com/showthread.php?p=3960107>
- Pycharm – for coding and creating GUI.
- Sublime text – for developing website.

Thank You