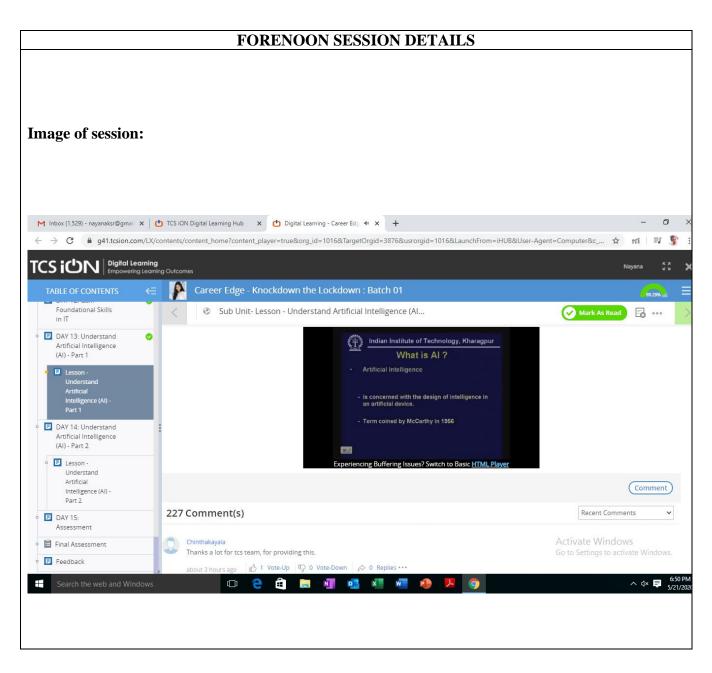
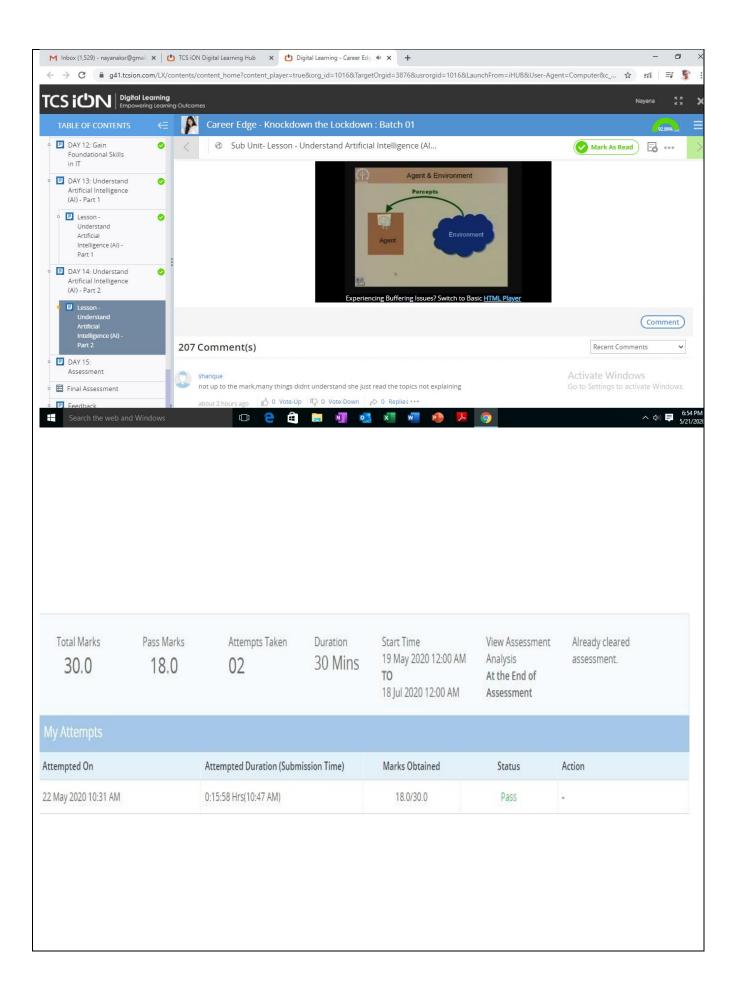
DAILY ASSESSMENT FORMAT

Date:	22/05/2020	Name:	V K MOKSHA
Course:	TCS ion	USN:	4AL16EC086
Topic:	Understand artificial	Semester	8 B
	intelligence	& Section:	
	Part-1 and Part-2		
	Assessment		
Github Repository:	Moksha-V-K		





CERTIFICATE: - □ □ 51658_4_7862934.pdf × + ∨ \leftarrow \rightarrow \circlearrowleft \bigcirc file:///C:/Users/moksha/Downloads/51658_4_7862934.pdf TCS ICIN | Digital Learning Hub | Learn, Share, Collaborate **TATA CONSULTANCY SERVICES** This is to certify that V K Moksha has successfully completed Career Edge - Knockdown the Lockdown online course offered by TCS iON Start Date: 19 May 2020 | End Date: 22 May 2020 Topics: ■ Communication Skills ■ Presentation Skills ■ Soft Skills ■ Career Guidance Framework ■ Resume Writing ■ Group Discussion Skills ■ Interview Skills ■ Business Etiquette ■ Effective Email Writing ■ Telephone Etiquette ■ Accounting Fundamentals ■ IT Foundational Skills ■ Overview of Artificial Intelligence* (Source: NPTEL) Mchul Mchta **CERTIFIED** Cert. ID.: 4-7862934-1016 Dated: 22 May 2020 Mehul Mehta Type here to search g^Q ∧ (1)) € ENG 22-05-2020

Report

Session 1

Understand artificial intelligence Part-1

Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem-solving.

As machines become increasingly capable, tasks considered to require "intelligence" are often removed from the definition of AI, a phenomenon known as the AI effect. A quip in Tesler's Theorem says "AI is whatever hasn't been done yet." For instance, optical character recognition is frequently excluded from things considered to be AI, having become a routine technology.

Modern machine capabilities generally classified as AI include successfully understanding human speech, competing at the highest level in strategic game systems (such as chess and Go), autonomously operating cars, intelligent routing in content delivery networks, and military simulations.

The traditional problems (or goals) of AI research include reasoning, knowledge representation, planning, learning, natural language processing, perception and the ability to move and manipulate objects. General intelligence is among the field's long-

term goals. Approaches include statistical methods, computational intelligence, and traditional symbolic AI.

Many tools are used in AI, including versions of search and mathematical optimization, artificial neural networks, and methods based on statistics, probability and economics. The AI field draws upon computer science, information engineering, mathematics, psychology, linguistics, philosophy, and many other fields.

Session 2

Understand artificial intelligence Part 2

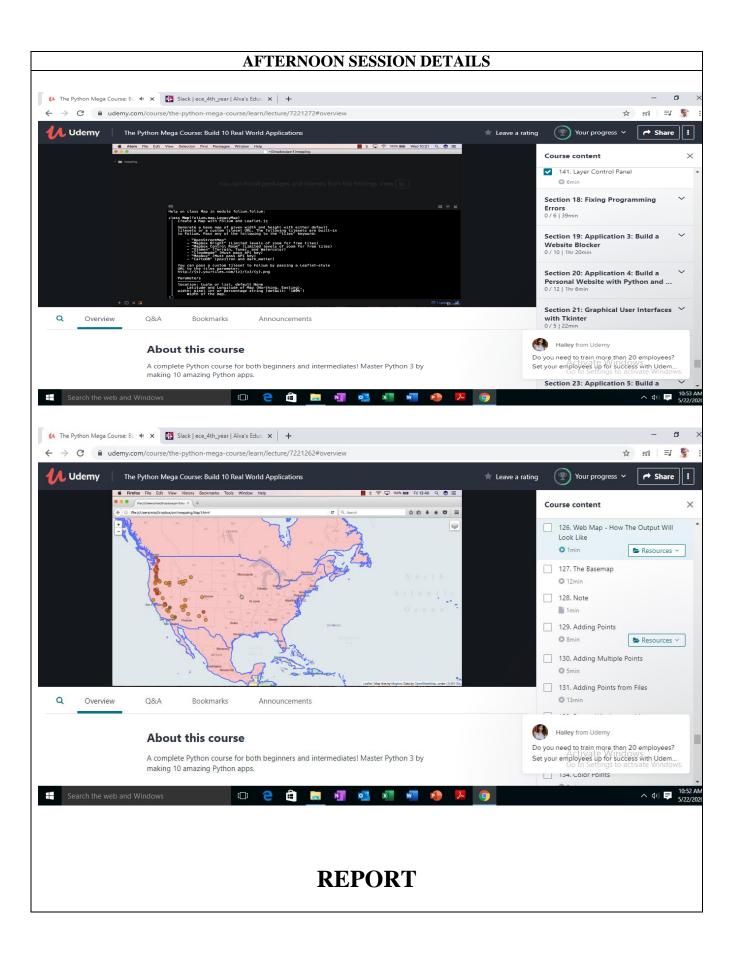
The field was founded on the assumption that human intelligence "can be so precisely described that a machine can be made to simulate it". This raises philosophical arguments about the nature of the mind and the ethics of creating artificial beings endowed with human-like intelligence. These issues have been explored by myth, fiction and philosophy since antiquity. Some people also consider AI to be a danger to humanity if it progresses unabated. Others believe that AI, unlike previous technological revolutions, will create a risk of mass unemployment.

In the twenty-first century, AI techniques have experienced a resurgence following concurrent advances in computer power, large amounts of data, and theoretical understanding; and AI techniques have become an essential part of the technology industry, helping to solve many challenging problems in computer science, software engineering and operations research.

Date: 22/5/2020 Name: V K MOKSHA
Course: Python USN: 4al16ec086

Topic: Creating web maps using Semester & 8 B

python and folium Section:



Folium is a Python package built to bridge the data wrangling muscle of Python with Leaflet's easy-to-use JavaScript library for creating attractive, interactive web maps. The open source Leaflet is a highly popular web mapping tool due to its flexibility, with a healthy number of community-developed plug-ins further expanding its native capabilities.

While Python is a robust programming language, with many packages contributing to geospatial analysis—Pandas, Geo Pandas, Fiona, Shapely, Matplotlib, and Descartes to name a few—Folium differentiates itself through ease of use and the interactive potential of the final product.

After some experimentation with the library, it did not take very long to produce a functional, albeit simple, web map with clustered point data, accompanied by popup windows. However, it was obvious that there is more to explore with Folium, as it plays well with many types of geospatial data, includes built-in functions and methods for producing choropleths, temporal visualizations, and allows for the marriage of the best of Python and Leaflet.

```
#Generate map using custom Mapbox tiles
m=folium.Map(location=[df[pdlat].mean(),
df[pdlon].mean()], zoom_start=9,
tiles='https://api.mapbox.com/styles/v1/username/yourstyle/tiles/256/{z}/{x}/{y}?
access_token=pk.yourtokenhere',attr='My data attribution')
#Iterate through edited dataframe to extract coordinates and property name for each
record
for row in df.iterrows():
prop = str(row[1]['Property'])
lat = row[1][pdlat]
lon = row[1][pdlon]
#used the marker_icon argument to select from natively supported bootstrap supported
icons and added clustering affect to markers
m.simple_marker(location=[lat, lon], marker_color='red', marker_icon='flag',
clustered_marker=True, popup=prop)
```

