Date :- 22/5/2020 Name :- Poojary Sushant

Course :- TCSION USN :- 4AL18EC400

Topic :- Understand Artificial Intelligence Section & sem :- 6th sem B'sec

Goals

- To introduce you to the field of Artificial intelligence.
- To explain the challenges inherent in building an "Intelligent System"
- To explain the
  - key paradigms
  - Core Techniques
  - Algorithms
- Access the applicability, strengths, & weakness of these method in solving particular engineering problem
- Develope Intelligent system by assembling solutions to concrete computational problems
- After taking this course you should be able to
  - Formulate problems as state space search
  - Problem & efficiently solve them
  - write game playing program
  - use machine learning to find Patterns in data
  - Build expert systems

Defination

-> It is concerned with the Design of Intelligence in an Artificial Device

-> Term coined by Mc. Carthy in 1956

-> Artifical Intelligence is concerned with the Design of Intelligence in an Artificial Device

The Turing Test: Results

It is Interrogator cannot Reliably Distinguish the human from the computer, Then the computer does process Intelligence.

What is Intelligence

- Behave as intelligently as human
- Behave in the best Posible Manner
- Thinking
- Acting

Typical AI Problems

- Intelligent Entities need to be able to do both "Mundane" & "Expert" Tasks.
  - → Planning Route, Activity
  - → Recognizing People, objects
  - → communicating
  - → Navigating Around obstacles on the street
- Expert Tasks
  - → Medical Diagnosis:
  - → Mathematical problem solving
- Intelligence Behaviour
  - → Perception
  - → Reasoning
  - → learning
  - → understanding language
  - → Solving problems
- Applications
  - → computer vision
  - → Image Recognition
  - → Robotics
  - → Language Processing
  - → speech Processing

AI Topics

- Core Area
- Perception
- Uncertainty
- General Algorithm
- Application

Limits of AI Today

- Todays successful AI system
- Commonsense knowledge

what can AI system do?

- computer vision: Face Recognition
- Robotics : Autonomous Automobile
- Natural language processing: simple Machine Translation
- Expert system: Medical Diagnosis in a Narrow Domain
- spoken language: 1000 words continous speech
- planning & scheduling: Hubble Telescope Experiments
- Gaming: Grand Master level in chess

what AI cannot do?

- Understand Natural language Robustly
- Read and Understand article in a Newspaper
- Surf the web
- Learn a Natural language.

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sushant poojary

has successfully completed

Career Edge - Knockdown the Lockdown

online course offered by TCS iON

Start Date: 17 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)

CERTIFIED
Cert. ID.: 4-8317410-1016
Dated: 22 May 2020

Mehul Mehta
Global Delivery Head, TCS iON

map.add_child(fgv)

Date :- 22 May 2020 Name Poojary Sushant

Course : Python on Udemy USN 4AL18EC400

Topic: Create web maps with Python & Folium semester - 6th B.Sec

```
import folium
import pandas
data = pandas.read_csv("volcanoes.txt")
lat = list(data["LAT"])
lon = list(data["LON"])
elev = list(data["ELEV"])
def color_producer(elevation):
    If elevation <1000:
        return 'green'
    elif 1000 <= elevation <3000:
        return 'orange'
    else
        return 'red'
for lt, ln, el in zip(lat, lon, elev):
    fgv.add_child(folium.CircleMarker(location=[lt, ln], radius=6,
popup=str(el)+" m", fill_color=color_producer(el), fill=True, color=
'grey', fill_opacity=0.7))

fgp= folium.FeatureGroup(name="Population")

fgp.add_child(folium.GeoJson(data=open('world.json','r',
encoding='utf-8-sig').read(), style_function=lamda x:
{'fillcolor':'green' if x['properties']['POP2005']<10000000
else 'orange' if 10000000<=x['properties']['POP2005']<20000000 else
'red'}))
```

```
map.add_child(fgv)
map.add_child(fgp)
map.add_child(folium.LayerControl())
map.save("Map1.html")
```