**DAILY ASSESSMENT FORMAT**

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| **Date:** | **22/5/2020** | **Name:** | **CHESMI B R** |
| **Course:** | **TCS ION** | **USN:** | **4AL16EC100** |
| **Topic:** | **Artificial intelligence part 1 and part 2** | **Semester & Section:** | **8th sem A sec** |
| **Github Repository:** | **Chesmibr** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session** |
| **Report –**  **ARTIFICIAL INTELLIGENCE:**  **Artificial intelligence (AI)**, the ability of a digital [computer](https://www.britannica.com/technology/computer) or computer-controlled [robot](https://www.britannica.com/technology/robot-technology) to perform tasks commonly associated with intelligent beings. The term is frequently applied to the project of developing systems endowed with the [intellectual](https://www.merriam-webster.com/dictionary/intellectual) processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience. Since the development of the [digital computer](https://www.britannica.com/technology/digital-computer) in the 1940s, it has been demonstrated that computers can be programmed to carry out very complex task as, for example, discovering proofs for mathematical theorems or playing  chess with great proficiency. Still, despite continuing advances in computer processing speed and memory capacity, there are as yet no programs that can match human flexibility over wider domains or in tasks requiring much everyday knowledge.  On the other hand, some programs have attained the performance levels of human experts and professionals in performing certain specific tasks, so that artificial intelligence in this limited sense is found in applications as [diverse](https://www.merriam-webster.com/dictionary/diverse) as medical [diagnosis](https://www.merriam-webster.com/dictionary/diagnosis), computer [search engines](https://www.britannica.com/technology/search-engine), and voice or handwriting recognition. AI research attempts to reach one of three goals: strong AI, applied AI, or [cognitive](https://www.merriam-webster.com/dictionary/cognitive) simulation. [Strong AI](https://www.britannica.com/technology/strong-artificial-intelligence) aims to build machines that think.  The ultimate ambition of strong AI is to produce a [machine](https://www.britannica.com/technology/machine) whose overall [intellectual](https://www.merriam-webster.com/dictionary/intellectual) ability is indistinguishable from that of a human being. As is described in the section [Early milestones in AI](https://www.britannica.com/technology/artificial-intelligence/The-Turing-test#ref219091), this goal generated great interest in the 1950s and ’60s, but such optimism has given way to an appreciation of the extreme difficulties involved. To date, progress has been meagre. Some critics doubt whether research will produce even a system with the overall intellectual ability of an [ant](https://www.britannica.com/animal/ant) in the forseeable future. Indeed, some researchers working in AI’s other two branches view strong AI as not worth pursuing.  Applied AI, also known as advanced [information processing](https://www.britannica.com/technology/information-processing), aims to produce commercially viable “smart” system for example, “expert” medical [diagnosis](https://www.merriam-webster.com/dictionary/diagnosis) systems and stock-trading systems. Applied AI has enjoyed considerable success, as described in the section [Expert systems](https://www.britannica.com/technology/artificial-intelligence/Expert-systems#ref219098).  In cognitive simulation, computers are used to test theories about how the human [mind](https://www.britannica.com/topic/mind) works—for example, theories about how people recognize faces or recall memories. Cognitive simulation is already a powerful [tool](https://www.britannica.com/technology/tool) in both neuroscience and [cognitive psychology](https://www.britannica.com/science/cognitive-psychology).  A typical AI analyzes its environment and takes actions that maximize its chance of success. An AI's intended [utility function (or goal)](https://en.wikipedia.org/wiki/Utility_function) can be simple ("1 if the AI wins a game of [Go](https://en.wikipedia.org/wiki/Go_(game)), 0 otherwise") or complex ("Do mathematically similar actions to the ones succeeded in the past"). Goals can be explicitly defined or induced. If the AI is programmed for "[reinforcement learning](https://en.wikipedia.org/wiki/Reinforcement_learning)", goals can be implicitly induced by rewarding some types of behavior or punishing others.  Alternatively, an evolutionary system can induce goals by using a "[fitness function](https://en.wikipedia.org/wiki/Fitness_function)" to mutate and preferentially replicate high-scoring AI systems, similar to how animals evolved to innately desire certain goals such as finding food. Some AI systems, such as nearest-neighbor, instead of reason by analogy, these systems are not generally given goals, except to the degree that goals are implicit in their training data. Such systems can still be benchmarked if the non-goal system is framed as a system whose "goal" is to successfully accomplish its narrow classification task.  **APPLICATIONS:**  AI is relevant to any intellectual task. Modern artificial intelligence techniques are pervasive and are too numerous to list here. Frequently, when a technique reaches mainstream use, it is no longer considered artificial intelligence; this phenomenon is described as the [AI effect](https://en.wikipedia.org/wiki/AI_effect).High-profile examples of AI include autonomous vehicles (such as [drones](https://en.wikipedia.org/wiki/Unmanned_aerial_vehicle) and [self-driving cars](https://en.wikipedia.org/wiki/Self-driving_cars)), medical diagnosis, creating art (such as poetry), proving mathematical theorems, playing games (such as Chess or Go), search engines (such as [Google search](https://en.wikipedia.org/wiki/Google_search)), online assistants (such as [Siri](https://en.wikipedia.org/wiki/Siri)), image recognition in photographs, spam filtering, predicting flight delays, prediction of judicial decisions, targeting online advertisements,  and [energy storage](https://en.wikipedia.org/wiki/Energy_storage).  With social media sites overtaking TV as a source for news for young people and news organizations increasingly reliant on social media platforms for generating distribution, major publishers now use artificial intelligence (AI) technology to post stories more effectively and generate higher volumes of traffic.  AI can also produce [Deepfakes](https://en.wikipedia.org/wiki/Deepfake" \o "Deepfake), a content-altering technology. ZDNet reports, "It presents something that did not actually occur," Though 88% of Americans believe Deepfakes can cause more harm than good, only 47% of them believe they can be targeted. The boom of election year also opens public discourse to threats of videos of falsified politician media. |

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| **Date:22/5/2020** |  | **Name: Chesmi** |  |
| **Course: Python** |  | **USN:4AL16EC100** |  |
| **Topic: Application 2:create web maps with python and folium** |  | **Sem :8th sem**  **Section: A sec** |  |
| **AFTERNOON SESSION DETAILS** | | | |
| **Image of session**          **Report:**  To create a web map based on that data using python code:   * Manipulate tabular data programmatically to extract geonames and create location-based data * Convert tabular data into a meaningful geographic data structure * Understand and apply the basic concepts of web mapping to design your own web map   Format of code:  tiles = "Mapbox Bright"  We can use this instead:  tiles = "Stamen Terrain"  Mapbox Bright and Stament Terrain are both types of basemaps, but Mapbox Bright doesn't work anymore. Stamen Terrain works great and you will see it creates a beautiful relief map.  **HTML on Popups**  Using Elfsight Popup widget, you can design your own customized pop-ups of for any task and display them on the site. Configure an authentic pop up, adding diverse included components. Change the layout and position; apply activating trigger and find the right frequency to get higher pop up effectiveness. Popups will allow visitors to subscribe to mailout, find out more about your offers, use their coupons, take part in sales and special offers, stay notified about important events on your website, and much more. Popups will help you sell better, promote planned occasions, collect feedback and leads, and much more. Features: Check all the functional traits of the widget. You can manage them right in the editor and they will help you construct the widget right for your use case.   * 12 included elements to configure a popup; * 5 ready-to-use pop up layouts for varied cases; * Place buttons for redirecting to any address; * Upload an image for the background; * Popup can be activated after a set time spent on the page or scroll percentage; * Pop up triggers: clicking on a certain element or scrolling down to it.   Note that if you want to have stylized text (bold, different fonts, etc) in the popup window you can use HTML. Here's an example:  import folium  import pandas  data = pandas.read\_csv("Volcanoes.txt")  lat = list(data["LAT"])  lon = list(data["LON"])  elev = list(data["ELEV"])  html = """<h4>Volcano information:</h4>  Height: %s m  map = folium.Map(location=[38.58, -99.09], zoom\_start=5, tiles="Mapbox Bright")  fg = folium.FeatureGroup(name = "My Map")  for lt, ln, el in zip(lat, lon, elev):  iframe = folium.IFrame(html=html % str(el), width=200, height=100)  fg.add\_child(folium.Marker(location=[lt, ln], popup=folium.Popup(iframe), icon = folum.Icon(color = "green")))  map.add\_child(fg)  map.save("Map\_html\_popup\_simple.html")  You can even put links in the popup window. For example, the code below will produce a popup window with the name of the volcano as a link which does a Google search for that particular volcano when clicked:  import folium  import pandas  data = pandas.read\_csv("Volcanoes.txt")  lat = list(data["LAT"])  lon = list(data["LON"])  elev = list(data["ELEV"])  name = list(data["NAME"])  html = """  Volcano name:<br>  <a href="https://www.google.com/search?q=%%22%s%%22" target="\_blank">%s</a><br>  Height: %s m  ""”  map = folium.Map(location=[38.58, -99.09], zoom\_start=5, tiles="Mapbox Bright")  fg = folium.FeatureGroup(name = "My Map")  for lt, ln, el, name in zip(lat, lon, elev, name):  iframe = folium.IFrame(html=html % (name, name, el), width=200, height=100)  fg.add\_child(folium.Marker(location=[lt, ln], popup=folium.Popup(iframe), icon = fol ium.Icon(color = "green")))  map.add\_child(fg)  map.save("Map\_html\_popup\_advanced.html") | | | |
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