**PRACTICAL WORK #1**

**Creating web map showing covid19 Vaccinations**

**Learning objectives.** On this specific task student will work with CSV data, read, upload it in ArcGIS online environment, represent it on map and make manipulation with data. Students will learn how to work with the different layers, to change, manipulate and represent the data from layers on the map, get to know and configure pop ups.

**Required materials.** CSV data (world vaccinations, <https://data.humdata.org/dataset/covid-19-vaccinations>), software(ArcGIS online), hardware(PC/laptop, Notebook) .

**Completing tasks.** On this exercise the students will learn and use the following skills: read and add data to a map, choose different basemap, change the style of data, customize pop-ups, save and share the map with the public.

***Exercise 1*.** Find and upload CSV data of covid-19 world vaccinations from <https://data.humdata.org/dataset/covid-19-vaccinations>. Add this data into ArcGIS online as a Layer.

***Exercise* 2.** Change the basemap and layer style, configure symbol color and transparency and save it.

***Exercise* 3.** Configure the pop-ups, customize the pop-up display, add field name of any location (country) and type vaccination in that location.

Save the map and share it.

**PRACTICAL WORK #2**

**CREATING WEB MAP APPLICATION OF NORTH AND SOUTH AMERICA EMERGENCY HOSPITALS**

**Learning objectives.** In this practical task student will work with web application in ArcGIS online environment. Students will be able to create application with Web AppBuilder, select appropriate map, customize application interface and become familiar with widgets.

**Required materials.** Software(ArcGIS online), hardware(PC/laptop, Notebook).

**Completing tasks.** On this exercise the students will learn and use the following skills: create web application via ArcGIS Web AppBuilder, select thematic map and appropriate widgets for data representation on it, save and share the map with the public.

***Exercise 1*.** Find and add the ***Hospital facilities with emergency services in the Americas,*** ***2021*** layer into ArcGIS online, then create Web App via Web ApplicationBuilder.

***Exercise* 2.** For the application select appropriate theme configure style and layout and select the map and save it.

***Exercise* 3.** Configure the widget menu. For the best representation of web application select 5 widgets. Configure the attribute menu, add the logo, title and subtitle for the app save and lunch it.

Save the application and share it.