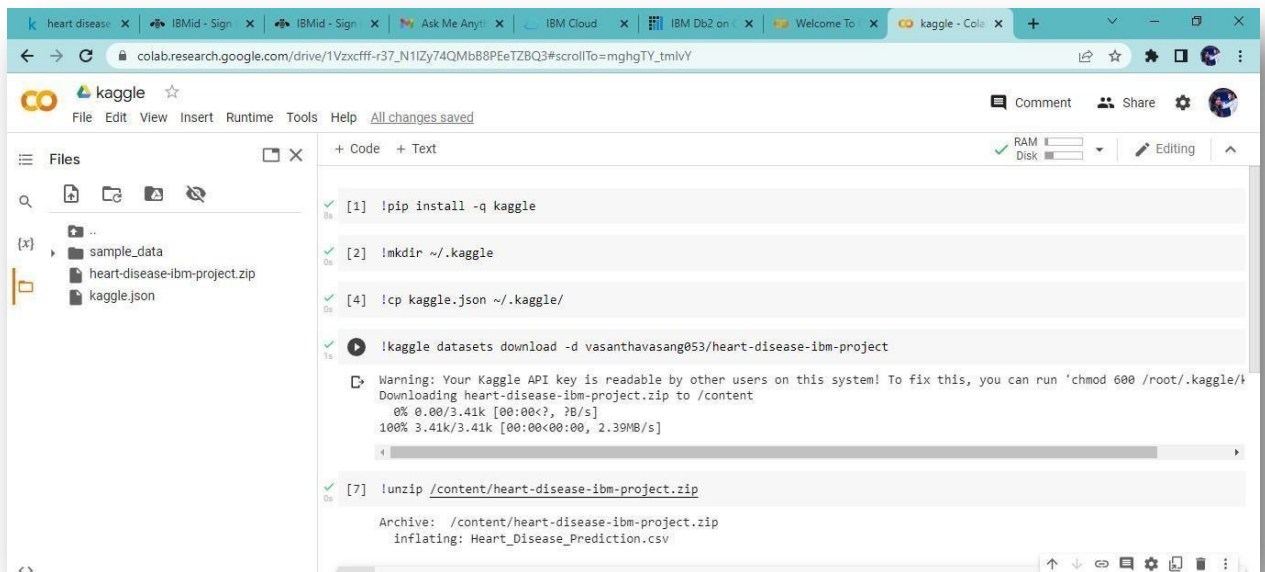


Working with Dataset

Date	05 November 2022
Team ID	PNT2022TMID37721
Project Name	Visualizing And Predicting Heart Diseases with An Interactive Dash Board

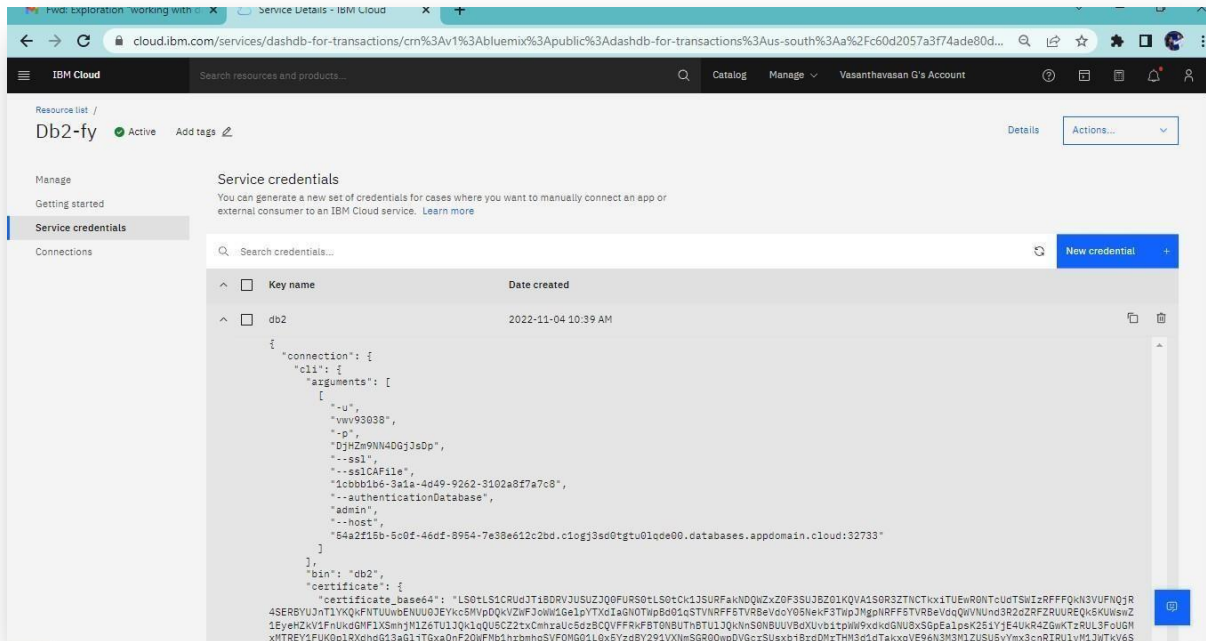
Loading and Understanding the Dataset



The screenshot shows a Google Colab notebook interface. The left sidebar displays the file explorer with a folder named 'sample_data' containing 'heart-disease-ibm-project.zip' and 'kaggle.json'. The main area shows a code cell with the following commands:

```
[1] !pip install -q kaggle
[2] !mkdir ~/.kaggle
[4] !cp kaggle.json ~/.kaggle/
!kaggle datasets download -d vasanthavasang053/heart-disease-ibm-project
Warning: Your Kaggle API key is readable by other users on this system! To fix this, you can run 'chmod 600 /root/.kaggle/
Downloading heart-disease-ibm-project.zip to /content
0% 0.00/3.41k [00:00<?, ?B/s]
100% 3.41k/3.41k [00:00<00:00, 2.39MB/s]
[7] !unzip /content/heart-disease-ibm-project.zip
Archive: /content/heart-disease-ibm-project.zip
inflating: Heart_Disease_Prediction.csv
```

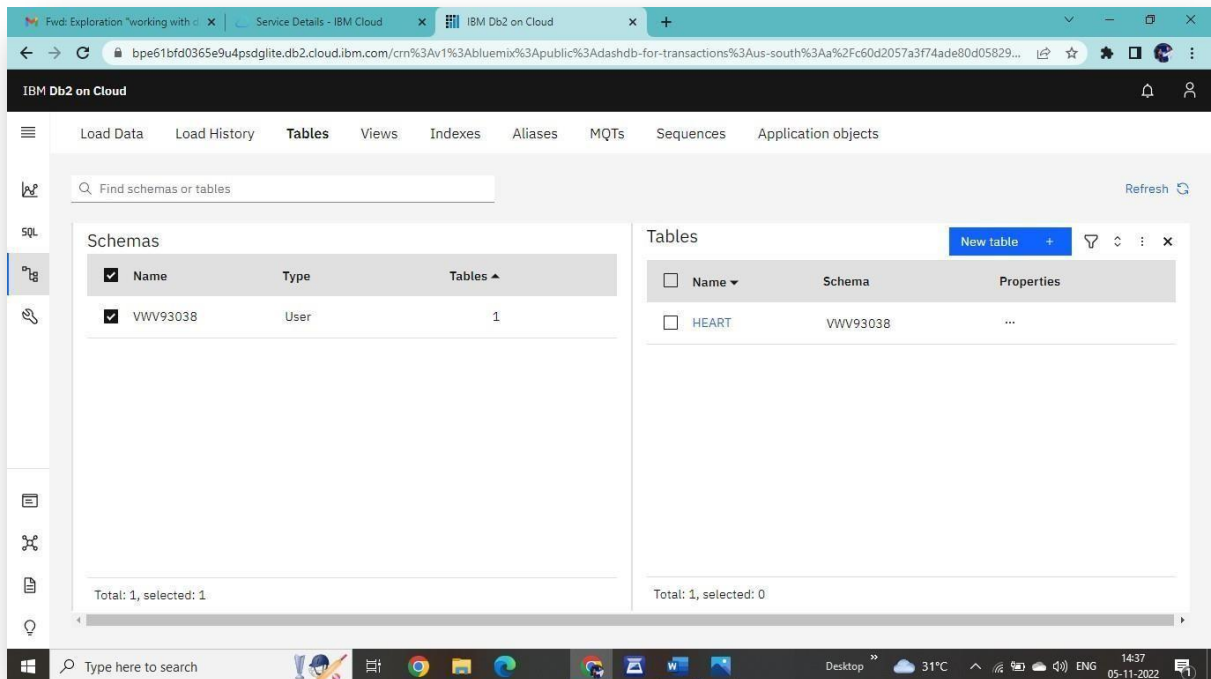
Successfully created Db2 Service Credential



The screenshot shows the IBM Cloud console interface. The top navigation bar includes the IBM Cloud logo, a search bar, and user account information. The left sidebar shows the 'Resource list' with 'Db2-fy' selected. The main content area is titled 'Service credentials' and includes a description: 'You can generate a new set of credentials for cases where you want to manually connect an app or external consumer to an IBM Cloud service. Learn more'. Below this, there is a table of service credentials. The table has two columns: 'Key name' and 'Date created'. A single credential named 'db2' is listed, created on '2022-11-04 10:39 AM'. Below the table, the JSON configuration for the credential is displayed, showing connection details for a Db2 instance.

Key name	Date created
db2	2022-11-04 10:39 AM

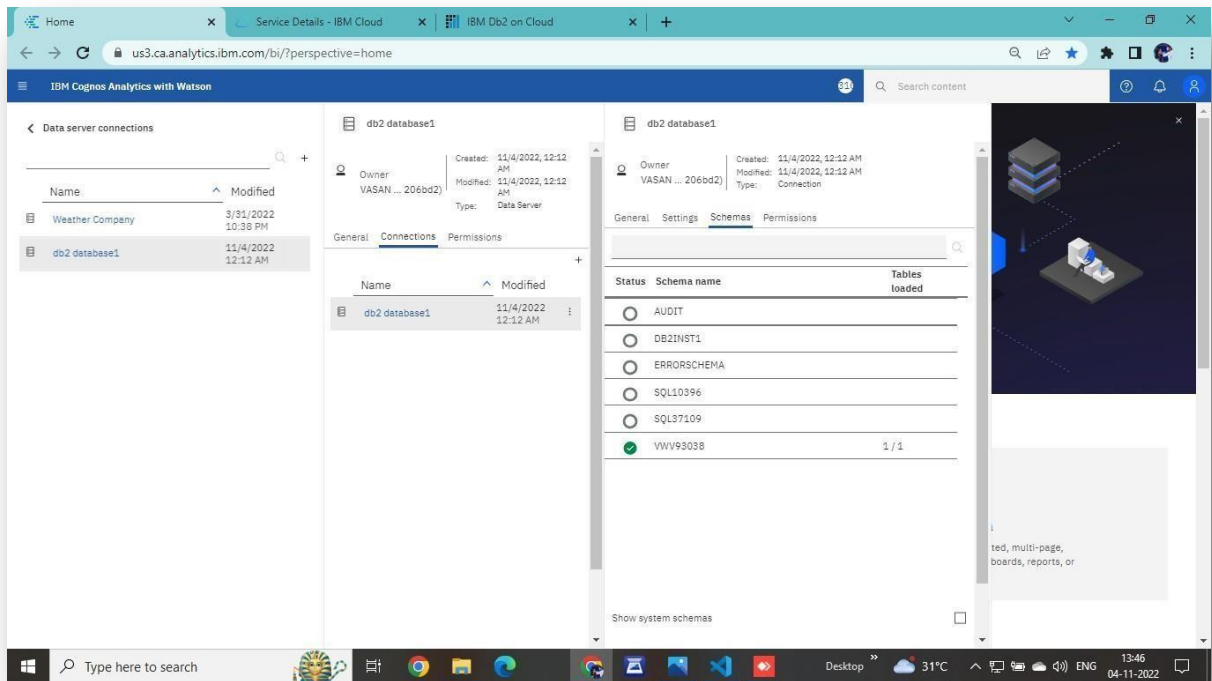
```
{
  "connection": {
    "cli": {
      "arguments": [
        "-u",
        "vwv93038",
        "-p",
        "DjhZe9NW40gJ3a0p",
        "--ssl",
        "--sslCAFile",
        "4cbb1b6-3a1a-4d49-9262-3102a8f7a7c8",
        "--authenticationDatabase",
        "admin",
        "--host",
        "64a2f15b-5c0f-46df-8954-7e38e612c2bd.c1ogj3s0tgtu0lqde00.databases.apptdomain.cloud:32733"
      ]
    }
  },
  "bin": "db2",
  "certificate_base64": "LS0tLS1CRUdJTG8DRVJUSUZJQ0FURSB0tLS0tck13SURFakNDQWZxZ0F3SUZBZ01KQVA1S0R3ZTNCTkx1TUEwR0NTcUgTSWZcRFFQK3N3VUFNQjR4SERBSUJnTlYXQkFNTUw0EUNU0JEYkc5MvDQkVZWFJoaW1Ge1pYTXdIaGN0TWpBd01qSTVNRFF6TVRBeVd0Y05NeKf3TwpJMc0NRFF6TVRBeVd0QWVWUmdSR2oZPFZRUUR2EQkSKUWswZ1E4eHVKV1FnUkd0MF1XSnnjN1Z6TUIJQk1qQU5CZ2ZxcCmhzeUc5d28CQVFRkF8T0N8Uth8TUIJQkN5N0NBULVbdXUvb1tpWw9xdkdG0u8X5GpEa1psK251YjE4UkR4ZGwKZzRUL3F0UGN1XHTREY1FUK8p1RX0ngG13a611TGxa0nF20wFm21hzmhgS1FOW801L0x6Y2dBY292VXNwSGR00pDYGz3USxb18c0MstHN5e2dTakxqUE96h3M3I3USU5Ym93cnR1RU1yM1JMTkY6S"
}
```



Successfully connected IBM Cloud Db2 to Cognos Analytics

The screenshot shows the IBM Cognos Analytics interface with a data module named 'Heart' selected. The data is displayed in a grid view with the following columns: Age, Sex, Chest Pain Type, Bp, Cholesterol, Fbs Over 120, EKG Results, and Max Hr.

Age	Sex	Chest Pain Type	Bp	Cholesterol	Fbs Over 120	EKG Results	Max Hr
70	1	4	130	322	0	2	109
67	0	3	115	564	0	2	160
57	1	2	124	261	0	0	141
64	1	4	128	263	0	0	105
74	0	2	120	269	0	2	121
65	1	4	120	177	0	0	140
56	1	3	130	256	1	2	142
59	1	4	110	239	0	2	142
60	1	4	140	293	0	2	170
63	0	4	150	407	0	2	154
59	1	4	135	234	0	0	161
53	1	4	142	226	0	2	111
44	1	3	140	235	0	2	180
61	1	1	134	234	0	0	145
57	0	4	128	303	0	2	159

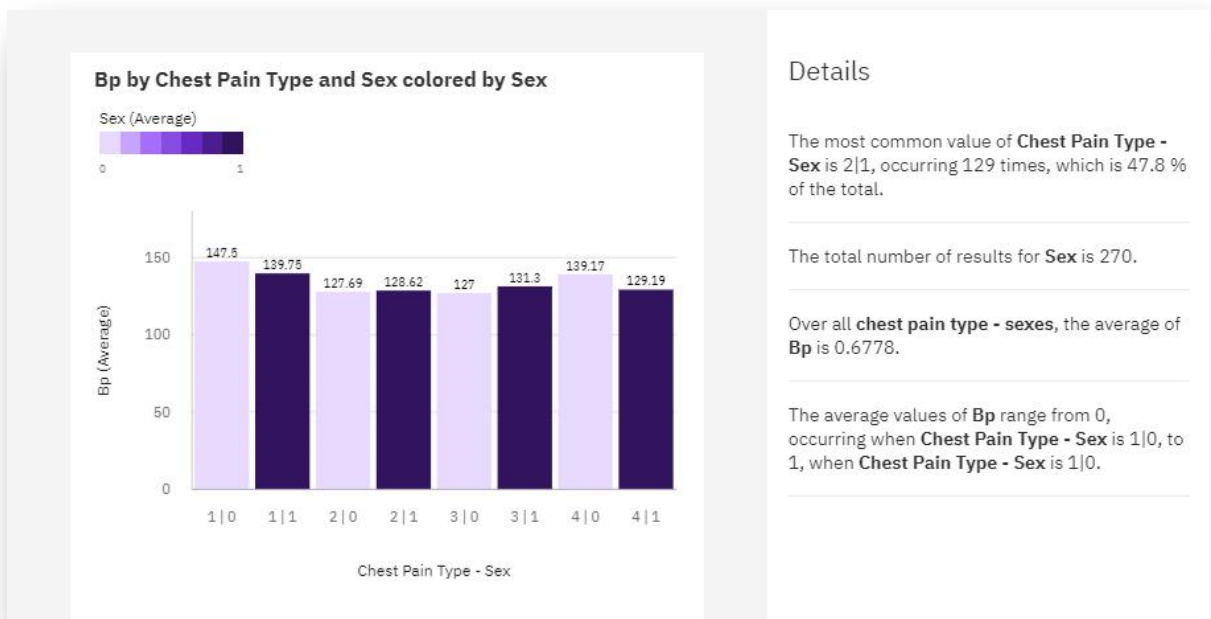
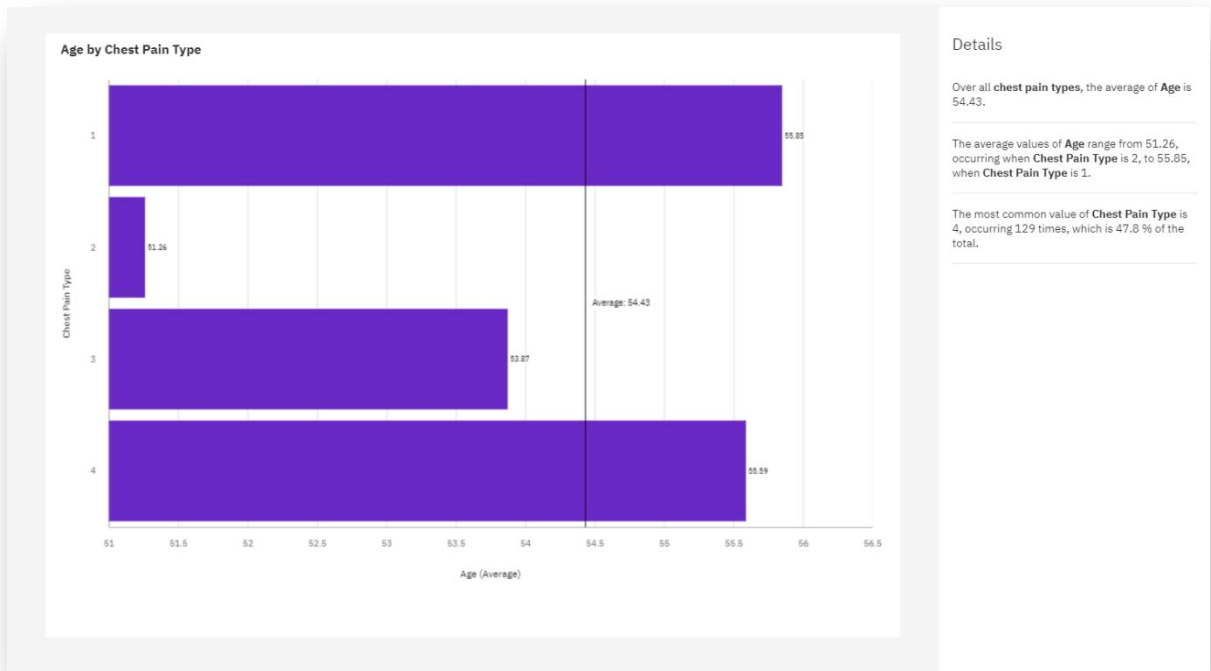


Data Preparation (Data Module)

Exploration of

Data:

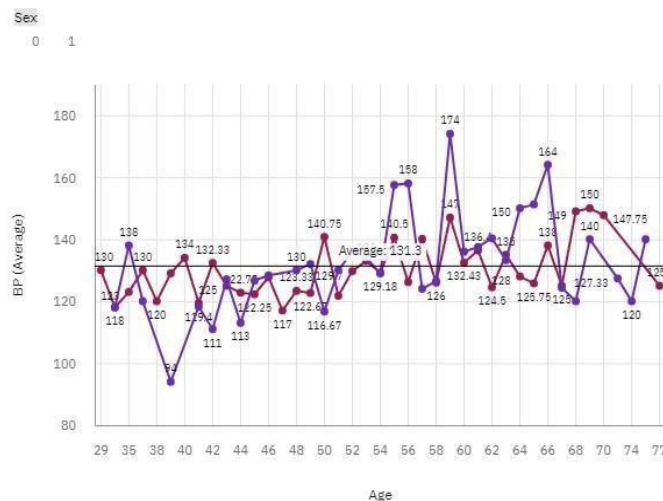
Age by Chest pain type



Exploration of

Exploration of Bp vs Chest pain type and Gender Max Heart Rate During Chest pain

BP by Age colored by Sex



Details

The most common values of **Age** are 54 (5.9 %) and 58 (5.6 %), together occurring 31 times, which is 11.5 % of the total.

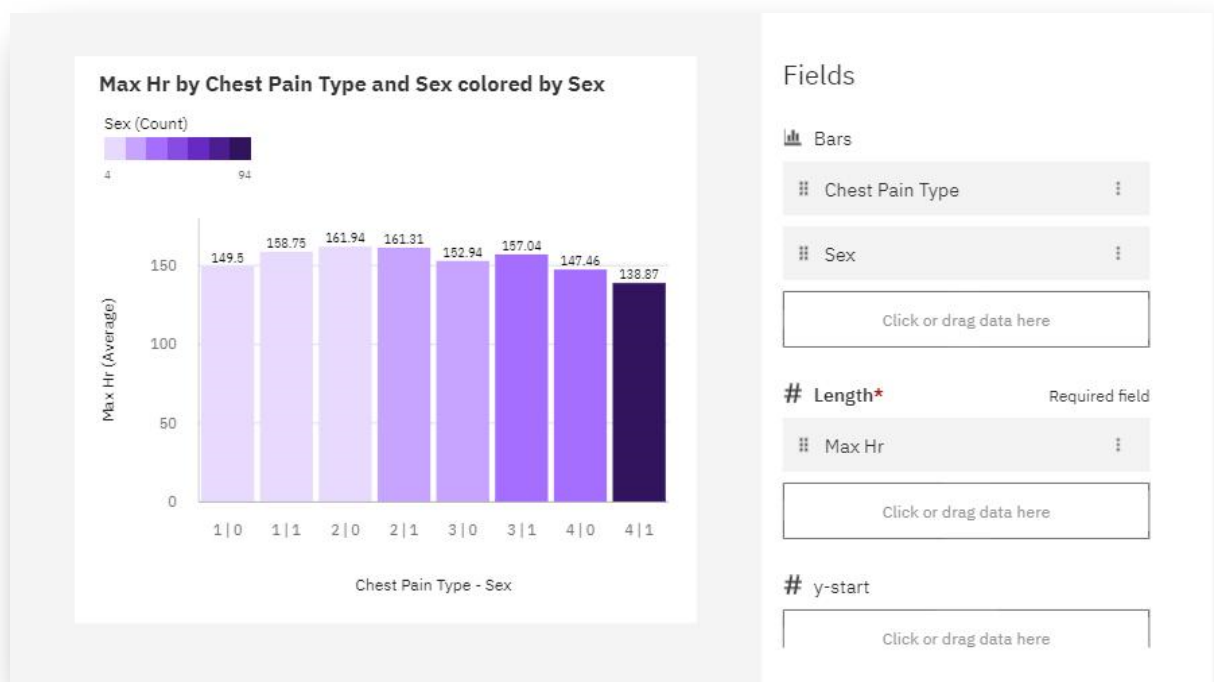
BP is unusually high when **Age** is 59.

The most common value of **Sex** is 1, occurring 183 times, which is 67.8 % of the total.

Over all **ages** and **sexes**, the average of **BP** is 131.3.

The average values of **BP** range from 94 to 174.

Exploration of



Exploration of Bp by Age

Exploration of

Cholesterol by Age and Gender

