Project Design Phase-II
Technology Stack (Architecture & Stack)
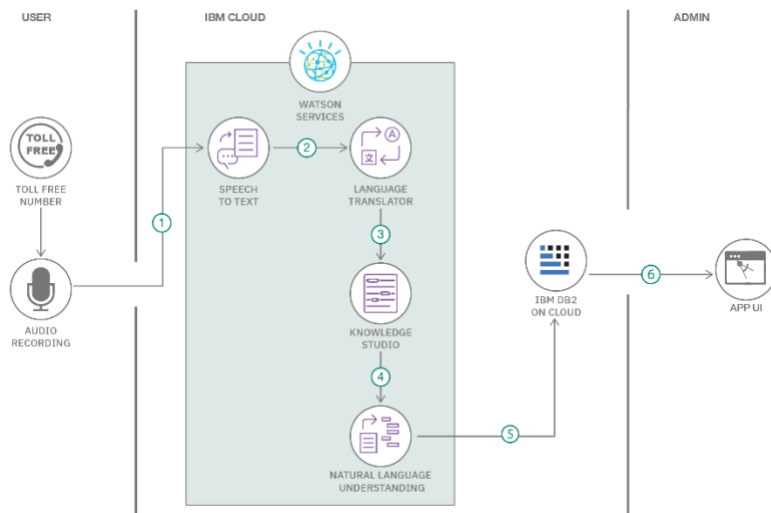
Date	03 October 2022
Team ID	PNT2022TMID16765
Project Name	Project - AI-based localization and classification of skin disease with erythema
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2
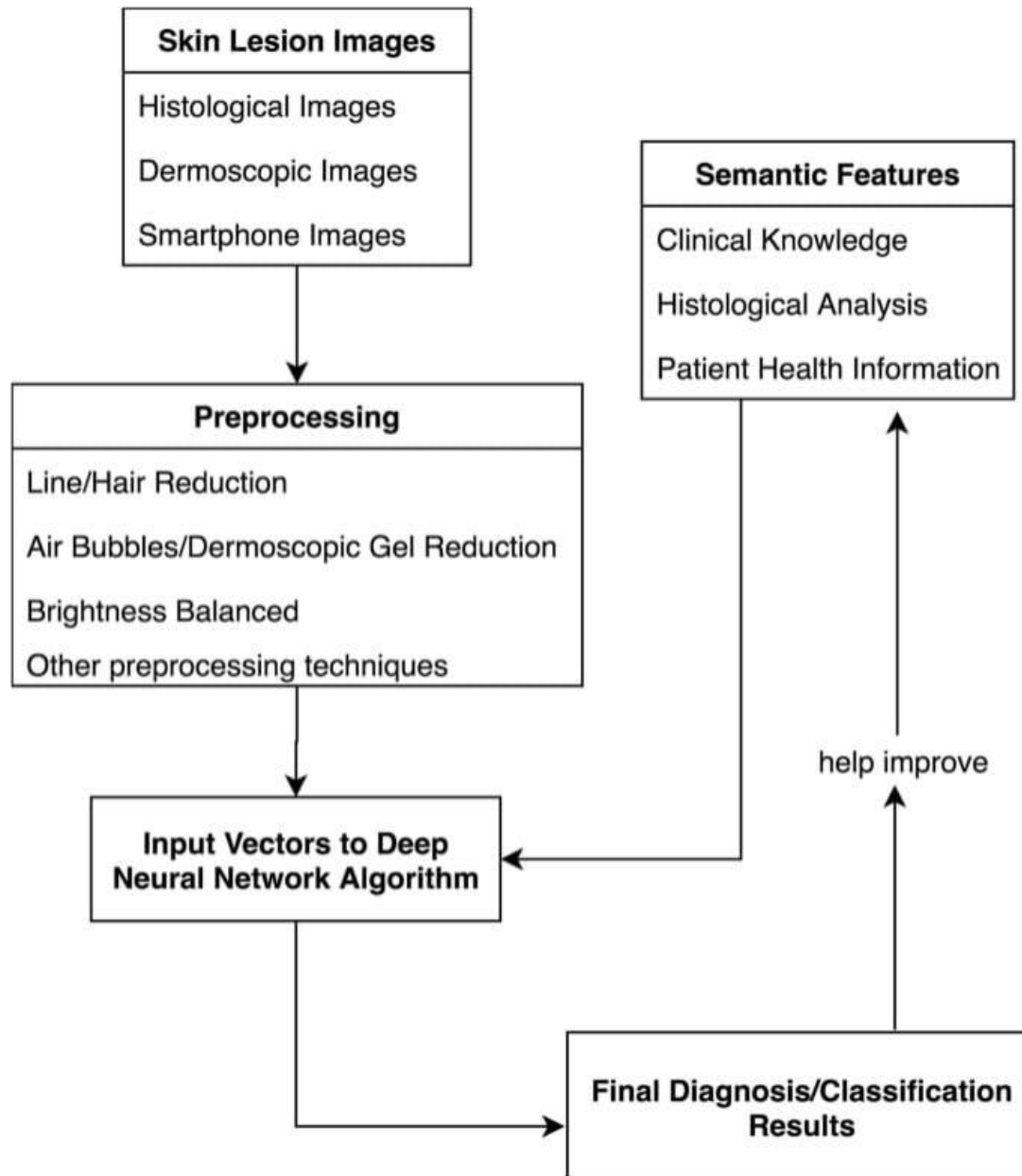
Example: Order processing during pandemics for offline mode

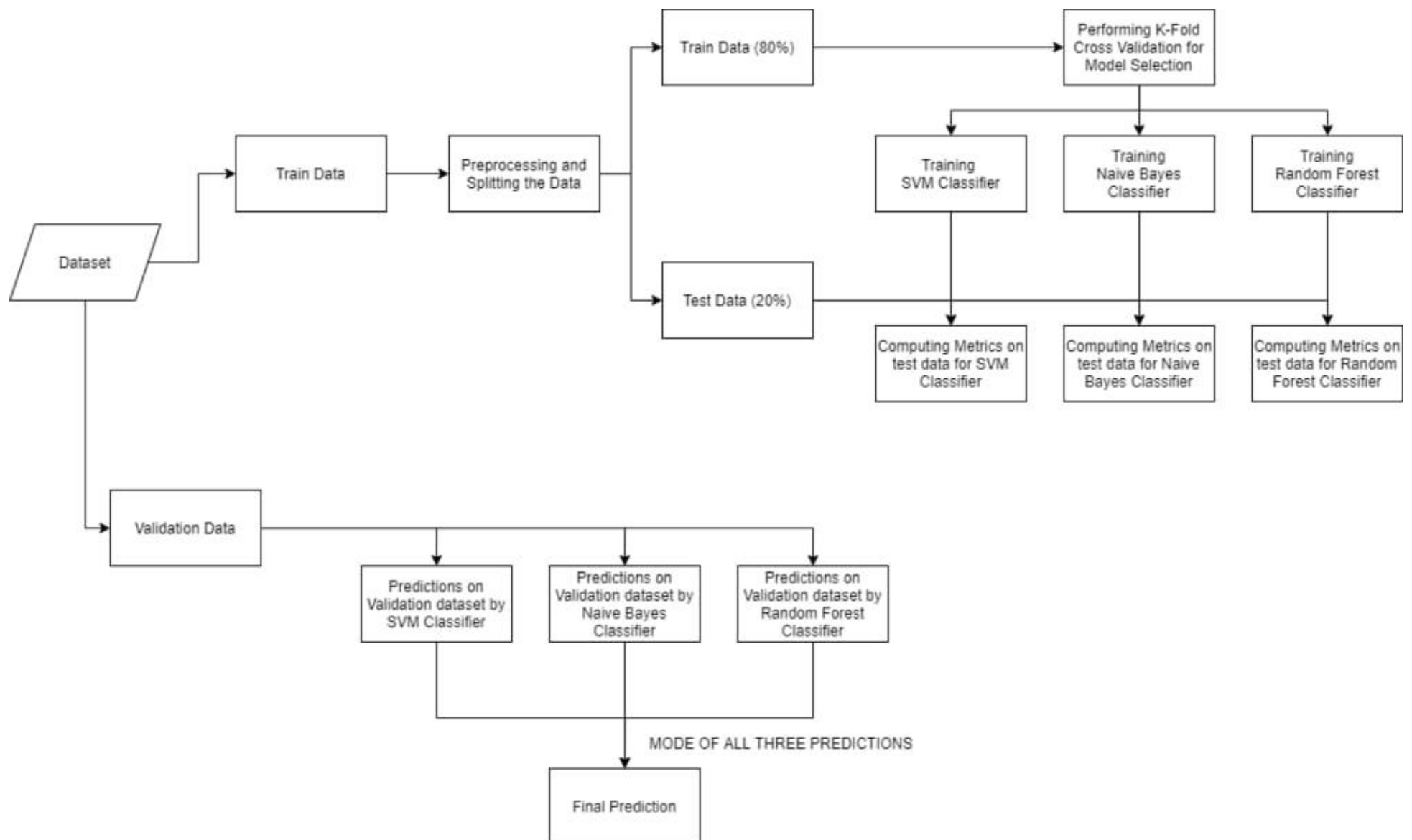**Reference: https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/**

Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

```
┌─────────────────────────┐
│    Skin Lesion Images   │
├─────────────────────────┤
│ Histological Images     │
│                         │
│ Dermoscopic Images      │
│                         │
│ Smartphone Images       │
└─────────────────────────┘
              │
              ▼
```

```
┌──────────────────────────────┐      ┌──────────────────────────────┐
│        Preprocessing         │      │       Semantic Features      │
├──────────────────────────────┤      ├──────────────────────────────┤
│ Line/Hair Reduction          │      │ Clinical Knowledge           │
│                              │      │                              │
│ Air Bubbles/Dermoscopic Gel  │      │ Histological Analysis        │
│ Reduction                    │      │                              │
│                              │      │ Patient Health Information   │
│ Brightness Balanced          │      └──────────────────────────────┘
│ Other preprocessing          │
│ techniques                   │
└──────────────────────────────┘
              │
              ▼
```

```
┌──────────────────────────┐
│  Input Vectors to Deep   │◄──────────────
│ Neural Network Algorithm │
└──────────────────────────┘
              │
              │              help improve
              ▼                   ▲
```

```
┌──────────────────────────────┐
│ Final Diagnosis/Classification │
│            Results             │
└──────────────────────────────┘
```

References:

https://c4model.com/

https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/

https://www.ibm.com/cloud/architecture

https://aws.amazon.com/architecture

https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d