Basic model of Yield Prediction:
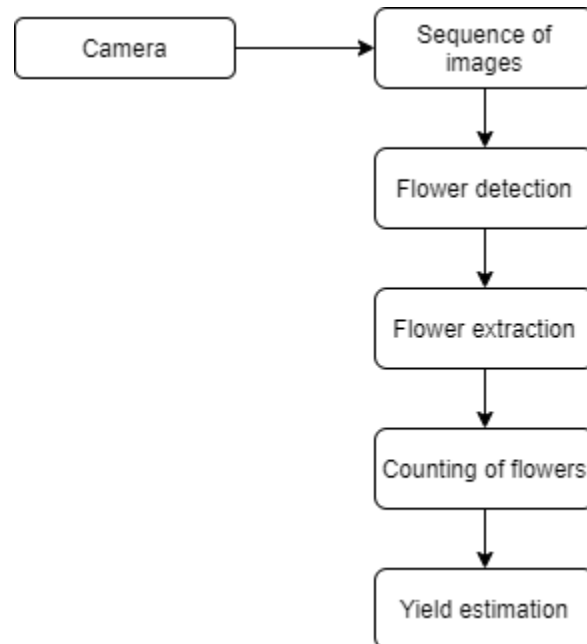
```
┌──────────┐            ┌──────────────┐
│  Camera  │──────────▶ │  Sequence of │
└──────────┘            │    images    │
                        └──────────────┘
                               │
                               ▼
                        ┌──────────────┐
                        │ Flower detection │
                        └──────────────┘
                               │
                               ▼
                        ┌──────────────┐
                        │ Flower extraction │
                        └──────────────┘
                               │
                               ▼
                        ┌──────────────┐
                        │ Counting of flowers │
                        └──────────────┘
                               │
                               ▼
                        ┌──────────────┐
                        │ Yield estimation │
                        └──────────────┘
```

Figure 1. Basic model of yield Prediction.

Flowchart of the System:

Start

Capturing Image & preprocessing

Converting RGB Image to HSV & retrieval of H component

Convert HSV image to grayscale image

Find Flower Regions

Extract Features of Flower Regions

Mark the flower which matches the features
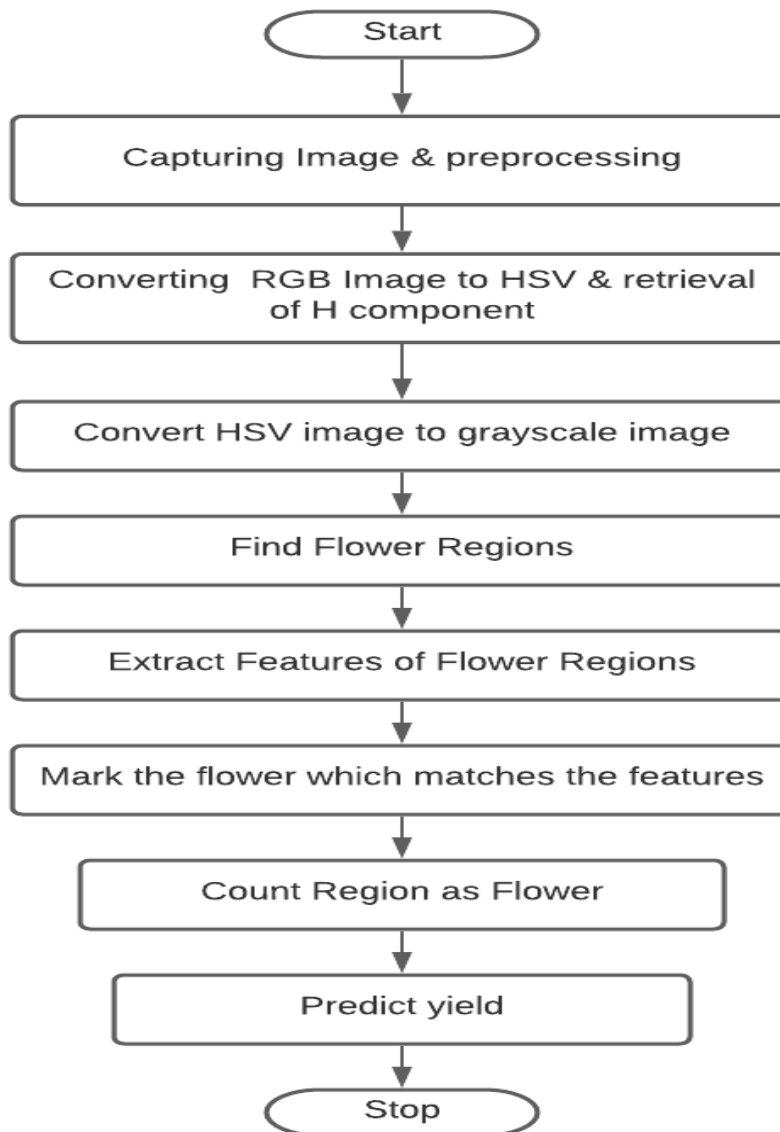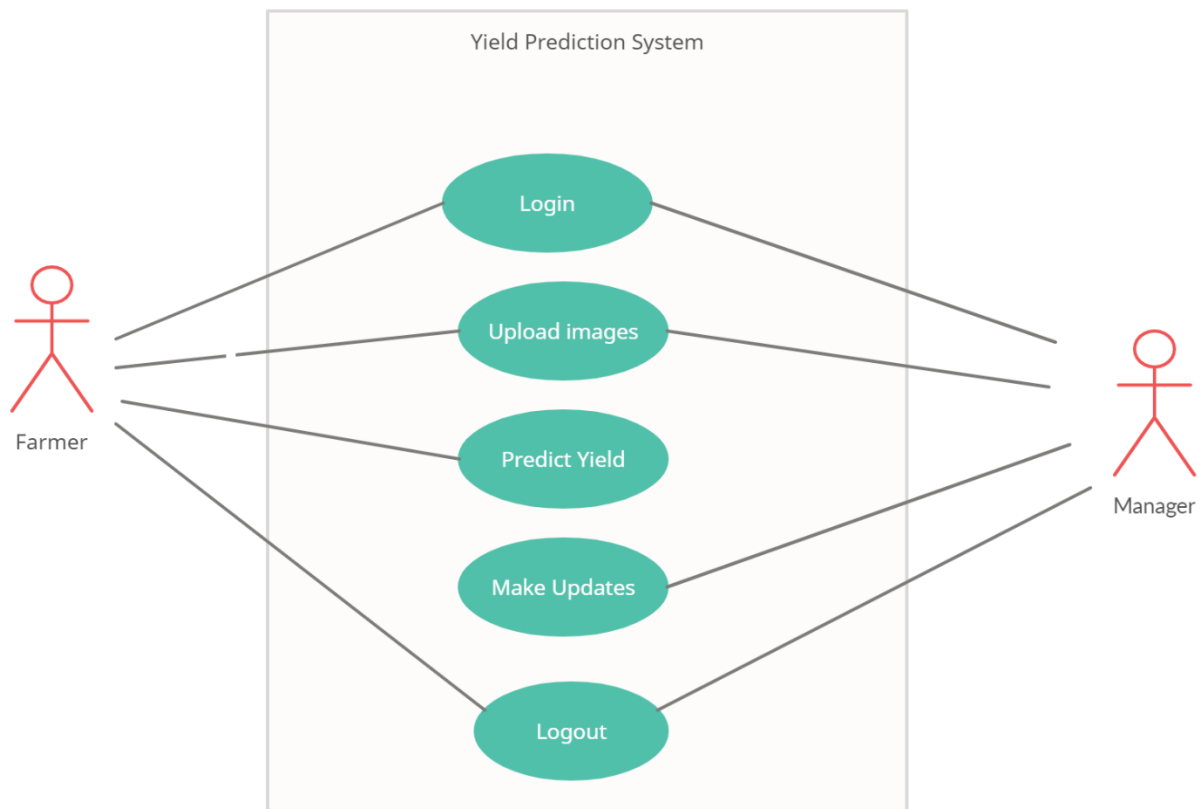
Count Region as Flower

Predict yield

Stop

Figure 2. Flowchart of the system.

Use case diagram:

Figure 3. Use case diagram