Component Diagram

```
┌──────────┐              ┌─────────────┐
│ Graph    │              │             │
│ Stream   │◄────────────►│ Application │
│ Library  │              │             │
└──────────┘              └─────────────┘
```

Process Diagram

```
┌──────────┐     ┌──────────┐     ┌───────────┐     ┌──────────┐     ┌──────────┐
│ Loading  │     │ File in  │     │Categorizing│    │ Building │     │ Display  │
│ Encost   │────►│ default  │────►│ Smart Home │───►│ Graph    │────►│ Graph    │
│ Smart    │     │ location │     │ Devices    │    │ Data     │     │ Visuali- │
│ Homes    │     └──────────┘     └───────────┘     │ Type     │     │ sation   │
│ Dataset  │          │               ▲             └──────────┘     └──────────┘
└──────────┘          │          No   │
     ▲                ▼               │
┌──────────┐     ┌──────────┐         │
│Visualising│    │ File in  │         │
│ Graph    │     │ backup   │─────────┘
│ Data     │     │ location │
└──────────┘     └──────────┘
     ▲
┌──────────────┐
│ Feature      │
│ Options      │
│(Community    │
│ User)        │
└──────────────┘
```

Option A → Visualising Graph Data

Option B → Viewing Summary Statistics

→ Categorizing Smart Home Devices → Building Graph Data Type → Display Graph Visualisation

→ Calculating Device Distribution → Calculating Device Location → Calculating Device Connectivity → Display Summary Statistics

```
┌──────┐     ┌───────────┐
│ User │────►│ User      │
└──────┘     │ Selection │
             └───────────┘
```

Option B (Fail)

Option A → Loading Custom Dataset → Succeed? → Option B

No → Account Login(Encost User) → Verified? → Feature Options

Option A (Fail)

Option B → Visualising Graph Data

Option C → Viewing Summary Statistics

→ Loading Encost Smart Homes Dataset → File in default location → Categorizing Smart Home Devices → Building Graph Data Type

Option B → Display Graph Visualisation

Option C → Calculating Device Distribution → Calculating Device Location → Calculating Device Connectivity → Display Summary Statistics

No → File in backup location