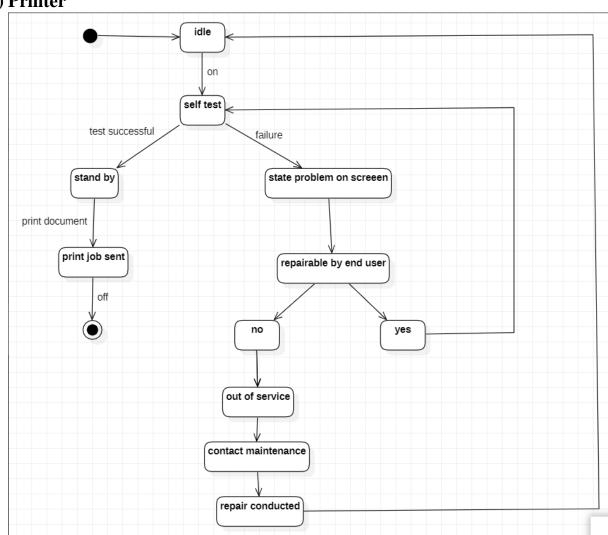**Rohan Nyati**
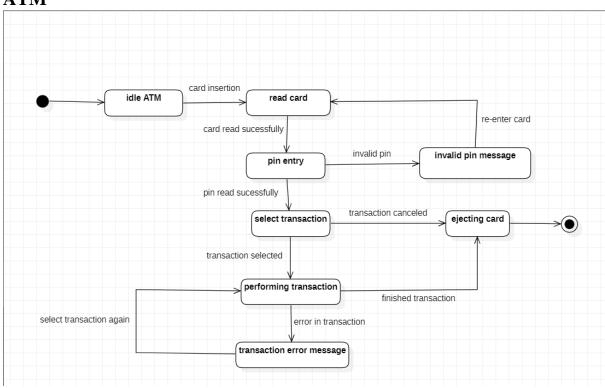**500075940**
R177219148
B-5 AI&ML SEM-5

Assignment-8

STATE DIAGRAMS

A) Printer

B) ATM

C) Telephone

State diagram showing telephone call states:

- (initial state) → **idle**
- **idle** → **dial tone** : off-hook
- **time out** → **idle** : on-hook
- **dial tone** → **time out** : time out
- **dial tone** → **dialing** : digits
- **dialing** → **dialing** : digits
- **dialing** → **time out** : time out
- **dialing** → **Recorded message** : recorded message
- **dialing** → **connecting** : valid number
- **connecting** → **Busy tone** : number busy
- **connecting** → **Ringing** : routed
- **Ringing** → **Connected** : called phone answers
- **Connected** → **Disconnected** : called phone hangs up
- **Recorded message** → **Disconnected** : message recorded
- **Disconnected** → (final state)