# Private Messenger
## Proccess Flowchart
@ Sony Wijaya

**Start** → input.py → Initialize & display window (tkinter GUI) → user input user name → login(self) → user name recognized or not

- false → (loops back to user input user name)
- true → messenger.py → Initialize window (GUI) pygame.init() → self.key = generator.getPrime() → calculate n and z → generator.getE (self.n, self.z) → generator.getD(self.z, self.e) → shareInfo() → menu() → mouse input → chat or exit
  - exit → **End**
  - chat → chat.py → Initialize & display window (tkinter GUI) → self.fetchMsg() → show decrypted msg → self.send()

shareInfo() → User 1 or User 2
- user 1 → write public key e and n → User_1.txt
- user 2 → write public key e and n → User_2.txt

self.send() → User 1 or User 2
- user 1 → get public key (e and n) from receiver txt → Info_2.txt → translator.encrypt(pubE, pubN, self.messageVar.get())
- user 2 → get public key (e and n) from receiver txt → Info_1.txt → translator.encrypt(pubE, pubN, self.messageVar.get())

self.fetchMsg() → User 1 or User 2
- user 1 → get array of encrypted text (as number) → Storage_1.txt → translator.decrypt(self.d, self.n, msg)
- uer 2 → get array of encrypted text (as number) → Stroage_2.txt → translator.decrypt(self.d, self.n, msg)