

## ★ ELIAS – Day 5 (Saturday) Official Work Plan

(Full Day — 10 AM to Night Work Session)

**Theme: Core Implementation + Connecting All Major Features**

Saturday = **MAIN development day**.

Today, 70% of the entire system gets built.

### ✖ Team Roles (Reference Only)

Member	Role	Responsibility
M S	Project Lead & Integrator	Connect all modules into one smooth pipeline
S S	NLP Developer	Expand NLP, add more intents, improve accuracy
A K	Vision Engineer	Implement real face recognition
R A	Plugin Developer	Build functional plugins
M A	Documentation & QA	Demo flow, logs, user manual

### 📅 Saturday Tasks (Day 5 — Main Coding Day)

#### 1. M S — Project Lead & Integrator

**Goal:** Build the FIRST fully working prototype of ELIAS.

##### ✓ Tasks

###### 1. Fully connect all plugins into app.py

- Today app.py should ROUTE REAL FUNCTIONS
- No more placeholders

###### 2. Create a proper action dispatcher

Example:

```
ACTION_MAP = {
```

```
    "open_website": open_website,  
    "search_youtube": youtube_search,  
    "create_note": create_note,
```

```
"play_music": play_music,  
}
```

### 3. Integrate detect\_face() into the beginning of app

- If face not detected → block assistance
- If detected → assistant starts

### 4. Write error-handling

Example:

try:

```
ACTION_MAP[intent](entities)
```

except Exception as e:

```
print("Error in execution:", e)
```

### 5. Create logs folder + log recorder

- Save each user input
- Save intent
- Save plugin used

### 6. Begin writing mini Streamlit UI

(Simple version today, full version Sunday)

#### ✓ Expected Output

- ✓ Full pipeline working
- ✓ app.py becomes “Brain of ELIAS”
- ✓ Face recognition gate added
- ✓ Logging started
- ✓ Ready for Sunday UI development

## 2. S S — NLP Developer

**Goal: Upgrade NLP so the assistant understands more commands.**

#### ✓ Tasks

1. Add **4–5 new intents**, e.g.:

- play music “song name”
  - search google for ...
  - tell me the time
  - create reminder
  - who are you / about assistant
2. Improve patterns using advanced regex:
- optional words
  - synonyms
  - multi-word capture groups
  - question forms (“can you”, “please”)
3. Add fallback logic:

If unknown intent:

return clarification suggestions

4. Build NLP test sheet (20 sample commands)
5. Test real integrations through app.py

### ✓ Expected Output

- ✓ NLP handles 10+ command types
- ✓ More flexible regex patterns
- ✓ Ready for final improvements on Sunday

## 3. A K — Vision & Authentication Engineer

**Goal: Real face recognition (first iteration).**

### ✓ Tasks

1. Implement real HaarCascade face detection
2. Add *face-recognition lite* (not full training):
  - Detect face
  - Crop face

- Compare to stored base image OR detect presence only
3. Create a “face register” script:

face\_register.py

Allows capturing 1 image to store as reference.

4. Connect detect\_face() to app.py logic
5. Add fallback message:

“No face detected — please adjust lighting”

### ✓ Expected Output

- ✓ Face authentication functional
- ✓ App.py can check face before running commands
- ✓ Face register system ready

## ■ 4. R A — Plugin / Action Developer

**Goal: Convert plugins from basic to functional automation.**

### ✓ Tasks

1. **open\_website.py**
  - Open any site from entities["url"]
2. **youtube\_search.py**
  - Open YouTube search results for query
3. **create\_note.py**
  - Append timestamp + text into notes.txt
  - Make folder notes/ today
4. **play\_music.py**
  - Play any mp3 from local music folder
  - Or open YouTube music link
5. **google\_search.py**
  - Auto open Google search results

### ✓ Expected Output

- ✓ Plugins actually performing real actions
- ✓ Tested through app.py
- ✓ Ready for Sunday polishing

## 5. M A — Documentation & QA

**Goal:** Prepare full project documentation.

### ✓ Tasks

1. Write:

docs/system\_architecture.md

docs/vision\_pipeline.md

docs/nlp\_intent\_design.md

docs/plugins\_overview.md

docs/day5\_log.txt

2. Create **Demo Script** for final presentation
3. Prepare screenshots for documentation
4. Test system end-to-end and note bugs

### ✓ Expected Output

- ✓ Clean, professional documentation
- ✓ Full test/QA notes
- ✓ Ready for Sunday UI demo preparation

## Saturday End-of-Day Final Expected State

By end of Day 5, the team must have:

- ✓ First fully working prototype
- ✓ Face authentication working
- ✓ NLP handling 10+ intents
- ✓ Plugins working (open website, youtube, notes, google, music)
- ✓ app.py routing and dispatcher created

- ✓ Logs recorded
- ✓ Documentation ready for UI phase

This is the MOST important day of the project.