🔷 EPIC 1: Robot Pose & Behavior Control

Purpose: Everything related to robot motion, pose extraction, and translation.

🔷 EPIC 2: Backend & Frontend System

Purpose: APIs, frontend UI, and user interaction.

🔷 EPIC 3: Deployment & Project Presentation

Purpose: Website, Docker/Kubernetes, deployment, documentation.

🔷 EPIC 1: Robot Pose & Behavior Control

🟦 Story 1: Analyze existing robot control and behavior

Description:

```
Analyze existing robot control code and test robot behavior
in Choregraphe and on the physical robot to understand motion control.
```

Story points: 3

🟦 Story 2: Design pose and behavior translation logic

Description:

```
Design a method to translate MediaPipe pose coordinates
into robot joint angles suitable for execution on the robot.
```

Story points: 5

🟦 Story 3: Implement pose translator (MediaPipe → robot angles)

Description:

```
Implement a translator that converts MediaPipe coordinates
from photos and videos into robot joint angles.
```

Story points: 8

🟦 Story 4: Test pose translation on photos and videos

Description:

```
Test the pose translation logic on multiple photos and videos
and verify correct robot behavior.
```

Story points: 5

🔷 EPIC 2: Backend & Frontend System

🟦 Story 5: Implement backend API for photo-based pose imitation

Description:

```
Create an API endpoint that accepts a photo and makes the robot
imitate the detected human pose.
```

Story points: 5

🟦 Story 6: Implement backend API for video-based behavior imitation

Description:

```
Create an API endpoint that processes video input and makes the robot
imitate the detected human behavior.
```

Story points: 8

🟦 Story 7: Design a UI for frontend for robot control

Description:

```
Design a responsive web frontend that allows users to send
photo or video input to the backend APIs.
```

Story points: 3

🟦 Story 8: Develop responsive frontend for robot control

Description:

```
Develop a responsive web frontend that allows users to send
photo or video input to the backend APIs.
```

Story points: 8

🔷 EPIC 3: Deployment & Project Presentation

🟦 Story 9: Create team web page

Description:

```
Create a team web page presenting the project, team members,
and project description.
```

Story points: 3

🟦 Story 10: Dockerize backend, frontend, and services

Description:

```
Dockerize backend services, frontend application,
and supporting components.
```

Story points: 5

🟦 Story 11: Deploy system using Kubernetes

Description:

```
Deploy the complete system using Kubernetes,
including backend, frontend, and team web page.
```

Story points: 8

🟦 Story 12: Integration testing and final verification

Description:

```
Perform system integration testing and verify that all components
work together as expected.
```

Story points: 5

📊 Total Story Points

Epic	Points
Robot Pose & Behavior	21
Backend & Frontend	24
Deployment & Presentation	21

Epic	Points
TOTAL	**66 SP**

👉 50–70 SP for a semester team project is **very realistic**

4️⃣ How to put these into sprints (important)

Sprint 1

- Analyze existing robot control and behavior (3)
- Create team web page (3)

≈ 6 SP

Sprint 2

- Design pose and behavior translation logic (5)
- Design a UI for frontend for robot control (3)

≈ 8 SP

Sprint 3

- Implement pose translator (MediaPipe → robot angles) (8)
- Test pose translation on photos and videos (5)
- Develop responsive frontend for robot control (8)

≈ 21 SP

Sprint 4

- Implement backend API for photo-based pose imitation (5)
- Implement backend API for video-based behavior imitation (8)

≈ **13 SP**

Sprint 5

- Dockerize backend, frontend, and services (5)
- Deploy system using Kubernetes (8)
- Integration testing and final verification (5)

≈ **18 SP**