**Engineering Conference Event Planner**:

You being one of our best Software Engineers is tasked in creating the planning software for the next Engineering Conference. We being Thought Leaders in Engineering Innovation and Technology we get multiple papers for the conference with different constraints on times. There are so many possibilities to create an efficient schedule. So you are tasked in automating with Software.

The constraints are as follows:

1. The **event** has a morning and an afternoon session.
2. Each **session** contains multiple talks.
3. We also have **Poster Presentations** and **Networking Event** at the end of the day (4pm to 6pm)
4. **Morning Session** begins at 8 am and must finish by 12 noon, for lunch.
5. **Afternoon Session** begins at 1pm and must finish in time for Poster Presentations and Networking Event.
6. Not talk has been ordered.
   1. Each **talk** has a duration in minutes or they will be **Vignettes** which are 5 minutes long.
   2. All the talks will be from our Home Experts.
   3. All the **Expert talk**s should be scheduled between 8 am and 4pm. Just in time for “The Poster Session and Networking Event”
      1. Since we have a lot of papers, we will have multiple tracks for Paper presentation
   4. Presenters will be very punctual. There needs to be no gap between Sessions.
7. Plan for two 15 minute **break**s:
   1. One in the morning session from 10:45 to 11:00 am
   2. One in the afternoon session from 2:30 pm to 2:45 pm

Depending on your Algorithm the order of the sessions could be different and the Tracks they are part of will be different. The Test Input and Output are given for better understanding of the problem. And you don’t need to recreate the exact Output. But your code should optimize the scheduling effectively.

**Test Input:**

EUV Catch me if you Can (Home Expert) 30 min

Wonder Defects and Where to find them? (Home Expert) 75 min

Architecting the Intelligent Apps Engineer (Vignette)

Quantum Entangled Inspection (Home Expert) 70 min

Tesla’s Legacy (Vignette)

Quantum Revolution by Super Clean Reticles (Home Expert) 60 min

Q#ing to Entropy Modeling (Home Expert) 45 min

Geek’s Life (Vignette)

BBP – Speed I am Speed (Home Expert) 45 min

What is a bug? – Test Driving to a Bug Free Universe (Home Expert) 90 min

Git your Rational Team Concert out of here (Home Expert) 35 min

Future of Particle Imaging with Muons (Vignette)

Continuous Delivery in a Disconnected Environment (Home Expert) 85 min

Atomic Transistors -> Super Computing in your Palm (5 min)

eBeam Wafer Inspection – Saves the Day (Home Expert) 60 min

Up for a real challenge - beyond the world of Mobile Apps (Vignette)

What if Tesla was lucky enough to work for us? (Vignette)

Quantum Revolution by Super Clean Reticles (Home Expert) 25 min

Quantum Machine Learning (Home Expert) 60 min

Defect Location Accuracy at the Atomic Level (Home Expert) 60 min

Timing the Photon Pulse (Vignette)

**Test Output:**

**Track 1:**

08:00 AM eBeam Wafer Inspection – Saves the Day (Home Expert) 60 min

09:00 AM BBP – Speed I am Speed (Home Expert) 45 min

09:45 AM EUV Catch me if you Can (Home Expert) 30 min

10:15 AM Quantum Revolution by Super Clean Reticles (Home Expert) 25 min

10:40 AM Geek’s Life (Vignette)

10:45 AM Break (15 min)

11:00 AM Quantum Machine Learning (Home Expert) 60 min

12:00 Noon Lunch 60 min

01:00 PM What is a bug? – Test Driving to a Bug Free Universe (Home Expert) 90 min

02:30 PM Break (15 min)

02:45 PM Tesla’s Legacy (Vignette)

02:50 PM Quantum Entangled Inspection (Home Expert) 70 min

04:00 PM Poster Session and Networking Event (120 min)

**Track 2:**

08:00 AM Q#ing to Entropy Modeling (Home Expert) 45 min

08:45 AM Wonder Defects and Where to find them? (Home Expert) 75 min

10:00 AM Git your Rational Team Concert out of here (Home Expert) 35 min

10:35 AM Up for a real challenge - beyond the world of Mobile Apps (Vignette)

10:40 AM What if Tesla was lucky enough to work for us? (Vignette)

10:45 AM Break (15 min)

11:00 AM Quantum Revolution by Super Clean Reticles (Home Expert) 60 min

12:00 Noon Lunch 60 min

01:00 PM Continuous Delivery in a Disconnected Environment (Home Expert) 85 min

02:25 PM Atomic Transistors -> Super Computing in your Palm (5 min)

02:30 PM Break (15 min)

02:45 PM Defect Location Accuracy at the Atomic Level (Home Expert) 60 min

03:45 PM Timing the Photon Pulse (Vignette)

03:50 PM Future of Particle Imaging with Muons (Vignette)

03:55 PM Architecting the Intelligent Apps Engineer (Vignette)

04:00 PM Poster Session and Networking Event (120 min)