AI = ML + Rules + Decision + Automation

Ab AI me focus hota hai:

- **Input lena**
- **Decision banana**
- **User ko output dena**
- **Thoda "intelligent behavior" dikhana**

EXPLANATION

- **if-else logic**
- **conditions**
- **decision making**

📌 **Example:**

```
marks = int(input("Enter marks: "))

if marks >= 90:
   print("Grade A")
elif marks >= 60:
   print("Grade B")
else:
   print("Grade C")
```

👉 **Ye simple AI behavior hai (decision making).**

✅ Step 2: ML Model ko AI Program banana

Ab tumhare ML model ko:

📌 **Example:**

```
age = int(input("Enter age: "))
salary = int(input("Enter salary: "))

result = model.predict([[age, 1, salary]])
print("Prediction:", result)
```

👉 **Ab ye AI system ban gaya.**

✅ Step 3: Basic AI Applications banana (VERY IMPORTANT)

Tumhe kam se kam 3 simple AI programs banana chahiye:

🔹 *Program 1: Student Performance AI*

- **Input: study hours**
- **Output: marks (ML model)**

🔹 *Program 2: Purchase Prediction AI*

- **Input: age, salary**
- **Output: yes/no**

🔹 *Program 3: Rule-Based Chatbot*

- **if-else based replies**

📌 Example:

```
msg = input("You: ")

if "hello" in msg.lower():
    print("Bot: Hello! How can I help?")
elif "bye" in msg.lower():
    print("Bot: Goodbye!")
else:
    print("Bot: I am learning...")
```

✅ Step 4: Mini AI Project (MOST IMPORTANT)

🧠 *Recommended Mini Project:*

Student Marks Prediction AI

Flow:

```
User Input → Preprocessing → ML Model → Prediction → Output
```

i. **Python**
ii. **Pandas** iii). **ML mode** IV). **User input**

SOLUTION OF QUESTION NO 2.

```
import pandas as pd
from sklearn.linear_model import LinearRegression

# Dataset
data = {
    'Hours': [1, 2, 3, 4, 5],
    'Marks': [30, 40, 50, 60, 70]
}

df = pd.DataFrame(data)

# Input & Output
X = df[['Hours']]
y = df['Marks']

# Model
model = LinearRegression()
model.fit(X, y)

# Prediction
hours = 6
predicted_marks = model.predict([[hours]])

print("Predicted Marks:", predicted_marks)
```