# Reinforcement Learning – Step-by-Step Explanation

## Step 1: Environment and Agent Setup

Reinforcement Learning (RL) starts with an environment and an agent. The environment is the world in which the agent operates. The agent interacts with this environment to achieve a certain goal. In this phase:

- - Agent observes the environment.
- - Agent decides what action to take.
- - Agent receives a reward or penalty based on the action taken.

This step sets the foundation of the learning cycle.

## Step 2: Learning from Rewards

In the second step, the agent uses the feedback (reward or penalty) received from the environment to improve its actions over time. The goal of the agent is to maximize the total reward by learning from past experiences. This involves:

- - Trying different actions and observing the results.
- - Remembering which actions gave high rewards.
- - Gradually improving the policy (strategy) to make better decisions.