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with Ada.Text_IO; use Ada.Text_IO;
procedure Dining_Philosophers is
  subtype ID is Integer range 1..5;

  task Waiter is          -- Waiter spec
    entry Pickup(I : in ID);
    entry Putdown(I : in ID);
  end
  task body Waiter is separate;

  task type Philosopher is  -- Philosopher spec
    entry init(who : ID);
  end;

  DP : array(ID) of Philosopher; -- the philosophers
  rounds : Integer;           -- number of rounds

  task body Philosopher is  -- Philosopher body
    myid : ID;
  begin
    accept init(who); myid := who; end;
    for j in 1..rounds loop
      -- "think"
      Waiter.Pickup(myid); -- pick forks up
      -- "eat"
      Waiter.Putdown(myid); -- put forks down
    end loop;
  end Philosopher;

  begin -- read in rounds, then start the philosophers
    Get(rounds);
    for j in ID loop
      DP(j).init(j);
    end loop;
  end Dining_Philosophers;

```

**Figure 8.18** Dining philosophers in Ada: Main program.