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1. **Pertama, mari hitung Entropy total: Total kasus = 10 Kasus "Ya" = 6 Kasus "Tidak" = 4**

   Entropy(S) = (-6/10 × log2(6/10)) + (-4/10 × log2(4/10)) = (-0.6 × log2(0.6)) + (-0.4 × log2(0.4)) = 0.971 bits

2. **Mari hitung Entropy dan Gain untuk setiap atribut:**

   A) TINGGI:

   - **Tinggi (4 kasus): 3 Ya, 1 Tidak Entropy = (-3/4 × log2(3/4)) + (-1/4 × log2(1/4)) = 0.811**
   - **Sedang (3 kasus): 2 Ya, 1 Tidak Entropy = (-2/3 × log2(2/3)) + (-1/3 × log2(1/3)) = 0.918**
   - **Rendah (3 kasus): 1 Ya, 2 Tidak Entropy = (-1/3 × log2(1/3)) + (-2/3 × log2(2/3)) = 0.918**

   Gain(Tinggi) = 0.971 - ((4/10 × 0.811) + (3/10 × 0.918) + (3/10 × 0.918)) = 0.971 - 0.877 = 0.094

   B) PENYIMPANAN:

   - **SSD (6 kasus): 5 Ya, 1 Tidak Entropy = (-5/6 × log2(5/6)) + (-1/6 × log2(1/6)) = 0.650**
   - **HDD (4 kasus): 1 Ya, 3 Tidak Entropy = (-1/4 × log2(1/4)) + (-3/4 × log2(3/4)) = 0.811**

   Gain(Penyimpanan) = 0.971 - ((6/10 × 0.650) + (4/10 × 0.811)) = 0.971 - 0.715 = 0.256

   C) RAM:

   - **16GB (3 kasus): 3 Ya, 0 Tidak Entropy = 0**
   - **8GB (5 kasus): 3 Ya, 2 Tidak Entropy = (-3/5 × log2(3/5)) + (-2/5 × log2(2/5)) = 0.971**
   - **4GB (2 kasus): 0 Ya, 2 Tidak Entropy = 0**

   Gain(RAM) = 0.971 - ((3/10 × 0) + (5/10 × 0.971) + (2/10 × 0)) = 0.971 - 0.486 = 0.485

   D) HARGA:

   - **Mahal (4 kasus): 3 Ya, 1 Tidak Entropy = 0.811**
   - **Sedang (3 kasus): 2 Ya, 1 Tidak Entropy = 0.918**
   - **Murah (3 kasus): 1 Ya, 2 Tidak Entropy = 0.918**

   Gain(Harga) = 0.971 - ((4/10 × 0.811) + (3/10 × 0.918) + (3/10 × 0.918)) = 0.971 - 0.877 = 0.094

   E) PROSESOR:

- **Core i7 (4 kasus): 3 Ya, 1 Tidak Entropy = 0.811**
- **Core i5 (3 kasus): 2 Ya, 1 Tidak Entropy = 0.918**
- **Core i3 (3 kasus): 1 Ya, 2 Tidak Entropy = 0.918**

Gain(Prosesor) = 0.971 - ((4/10 × 0.811) + (3/10 × 0.918) + (3/10 × 0.918)) = 0.971 - 0.877 = 0.094.

Jadi karena Gain tertinggi adalah RAM (0.485), sehingga RAM menjadi node akar.