Table 4.5: Attributes and responses to the perform() message of some objects from the Robot hierarchy

Object name	Class	Attributes	Response to perform() message
jeeves	ButlerRobot	meansOfMobility: two legs language: English	answer door
mart	MartianRobot	meansOfMobility: wheels language: Martian noOfWheels: 8	transmit reports to earth in Martian
pat	DogRobot	meansOfMobility: four legs noise: Woof bestTrick: fetch stick noisy: True	fetch stick and say 'Woof, Woof, Woof, Woof'

```
Robot automaton[];
 int i;
 automaton = new Robot[7];

 automaton[0] = new CookRobot();
 automaton[1] = new MaidRobot();
 automaton[2] = new ButlerRobot();
 automaton[3] = new MartianRobot();
 automaton[4] = new WierdoRobot();
 automaton[5] = new DogRobot();
 automaton[6] = new CatRobot();
```

Figure 4.31 Java code for the array of Robot objects

```
for (i=0;i<7;i++)
 {
 automaton[i].perform();
 }
```

Figure 4.32 Java code for the array of Robot objects

purpose. Programmers searching a library are able to readily identify software components to meet their needs.

- Classes and compositions of classes encapsulate their internal details so that all that a client component needs to know about is the interface. This helps with the problem of using components originally written for different systems in different languages.