

Solution to CSE143X Section #14 Problems

1.	Statement	Output
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	var1.method1();	bar 1 / foo 1 / baz 2
	((Baz)var2).method2();	runtime error
	((Bar)var2).method2();	bar 2
2.	Statement	Output
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	var1.method2();	Second2
	var2.method2();	Third2
	var3.method2();	Fourth2
	var4.method2();	Third2
	var5.method2();	compiler error
	var6.method2();	compiler error
	var1.method3();	Second2
	var2.method3();	Third2
	var3.method3();	Fourth2
	var4.method3();	Third2
	var5.method3();	compiler error
	var6.method3();	compiler error
	((Second)var4).method1();	compiler error
	((Third)var4).method1();	Third1/Second2
	((Second)var5).method2();	runtime error
	((First)var5).method3();	Fourth2
	((Third)var5).method1();	runtime error
	((First)var6).method3();	Second2
	((Second)var6).method1();	compiler error
	((Second)var6).method3();	Second2
3.	Statement	Output
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	var1.method1();	harry 1
	var2.method1();	larry 1/harry 1
	var3.method1();	larry 1/harry 1
	var4.method1();	larry 1/harry 1
	var5.method1();	larry 1/harry 1
	var6.method1();	compiler error
	var1.method2();	harry 1/harry 2
	var2.method2();	larry 1/harry 1/harry 2
	var3.method2();	mary 2/jerry 2
	var4.method2();	mary 2
	var5.method2();	mary 2/jerry 2
	var6.method2();	compiler error
	var3.method3();	compiler error
	var5.method3();	larry 1/harry 1/mary 3
	((Larry)var1).method1();	runtime error
	((Mary)var2).method2();	runtime error
	((Jerry)var5).method1();	larry 1/harry 1
	((Mary)var3).method3();	larry 1/harry 1/mary 3
	((Jerry)var4).method3();	runtime error
	((Mary)var6).method3();	runtime error

4.	Statement	Output
	var1.method1();	foo 1/bar 2
	var2.method1();	baz 1/mumble 1
	var3.method1();	foo 1/bar 2
	var4.method1();	baz 1
	var5.method1();	baz 1/mumble 1
	var6.method1();	compiler error
	var1.method2();	bar 2
	var2.method2();	baz 2/baz 1/mumble 1
	var3.method2();	bar 2
	var4.method2();	baz 2/baz 1
	var5.method2();	baz 2/baz 1/mumble 1
	var6.method2();	compiler error
	var3.method3();	bar 3
	var5.method3();	compiler error
	((Bar)var1).method3();	bar 3
	((Mumble)var4).method3();	runtime error
	((Mumble)var5).method3();	mumble 3
	((Bar)var2).method3();	runtime error
	((Baz)var2).method2();	baz 2/baz 1/mumble 1
	((Mumble)var6).method2();	runtime error

5. Details of Inheritance. The output produced is as follows.

Statement	Output
var1.method2();	Fo 2/Fie 3/Fum 3
var2.method2();	compiler error
var3.method2();	Fo 2/Fee 3
var4.method2();	compiler error
var5.method2();	compiler error
var6.method2();	Fo 2/Fum 3
var1.method3();	Fie 3/Fum 3
var2.method3();	compiler error
var3.method3();	Fee 3
var4.method3();	compiler error
var5.method3();	compiler error
var6.method3();	Fum 3
((Fee)var3).method1();	Fee 1/Fo 3
((Fee)var4).method1();	runtime error
((Fie)var1).method2();	Fo 2/Fie 3/Fum 3
((Fo)var3).method3();	Fee 3
((Fie)var6).method2();	runtime error
((Fo)var2).method3();	Fum 3
((Fie)var3).method1();	runtime error
((Fo)var5).method2();	Fo 2/Fo 3