

## Extensible Toys

There are three types of toys: doll (base cost: 100), warrior( base cost: 150) and a race driver (base cost: 200) Each of them may be extended by any number of "features", each of which increases the total cost a the toy. Toys are objects implementing IToy interface which constains following methods:

- **float Cost()** - returns a total cost of the toy
- **string Summary()** - returns a string describing the toy and all its features

Your task (keep in mind that the solution has to be extensible):

1. Add a possibility to attach a sword to the toy. The sword increases the toy's total cost by 15 and adds a line to the description field: "I have a sword!".
2. Add a possibility to attach a helmet to the toy. Helmet increases the toy's total cost by 10 and adds a line "I have a helmet on my head!".
3. Any toy should have a possibility to wear a dress. The dress may be flower or dotted. If it's flower it increases the cost of the toy by 20 and by 19.99 if it's dotted. It also adds "I have a flower/dotted dress" to the description.
4. Add a method **float Height()** to every toy and make sure the description has a line "I am XX cm high" (where XX is the actual height). Set any height you want for each toy.
5. Implement a possibility of jumping which increases the cost by 20. Add "I can jump! I just jumped X cm!" to the description, where X should initially be a number equal to 50% of toy's height. Each consecutive jump (which occurs when **Summary()** method is called) is shorter by 10 percent points (i.e. 50%, then 40%, 30%, 20%, 10%). After 5 jumps the toy stops jumping (it doesn't add anything to **Summary()**). Add any toy you want in Main, attach the Jumping feature to it and call **Summary()** on it at least 6 times.

6. Add a possibility of dancing to the toy. There are one of three possible dances: breakdance (+50 to cost), solo capoeira (+70 to cost), gangnam style dance (+100). Description should contain a line: "I can dance <type of dance>".
7. Make sure that there is possibility of adding any number of dance styles to the toy.
8. Implement a possibility of adding an option of storytelling. There should be two options: scary stories or jokes. Both add 30 to the total price. Add either "I tell scary stories" or "I tell really funny jokes!".
9. Add two new possible types of toys: minotaur and centaur. Each centaur has: a name, age, height, an information whether it has a beard. Each minotaur has: a name, age, height, mass. Each of those toys has base cost of 250 and all features are available for them as well. Set initial description to anything telling its name, age etc.