01 Introduction to C# and Data Types

Understanding Data Types

Test your Knowledge

1. What type would you choose for the following “numbers”?

Data type int()

A person’s telephone number

Int()

A person’s height

double

A person’s age

int

A person’s gender (Male, Female, Prefer Not To Answer)

String

A person’s salary

Float

A book’s ISBN

string

A book’s price

int

A book’s shipping weight

double

A country’s population

long

The number of stars in the universe

long

The number of employees in each of the small or medium businesses in the

Int or long

United Kingdom (up to about 50,000 employees per business)

long

2. What are the difference between value type and reference type variables? What is

boxing and unboxing?

Boxing is the process of converting a value type to the type object or to any interface type implemented by this value type. When the common language runtime (CLR) boxes a value type, it wraps the value inside a System.Object instance and stores it on the managed heap. Unboxing extracts the value type from the object. Boxing is implicit; unboxing is explicit. The concept of boxing and unboxing underlies the C# unified view of the type system in which a value of any type can be treated as an object.

1. What is meant by the terms managed resource and unmanaged resource in .NET

Managed resources are those that are pure .NET code and managed by the runtime and are under its direct control.

Unmanaged resources are those that are not. File handles, pinned memory, COM objects, database connections etc.

1. Whats the purpose of Garbage Collector in .NET?

To clear the memory which is allocated when the object was created and not used after that.

I am sorry but I did the practice and did some but I wasn’t able to the exercise because I had my finals this week.

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Text

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Practice NO . 2 ARRAY LIST

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Abstract Class

namespace Abstractclasses

{

class Cube : Shape

{

public double Length { get; set; }

public Cube(double length)

{

Name = "Cube";

Length = length;

}

public override double Volume()

{

return Math.Pow

}

}