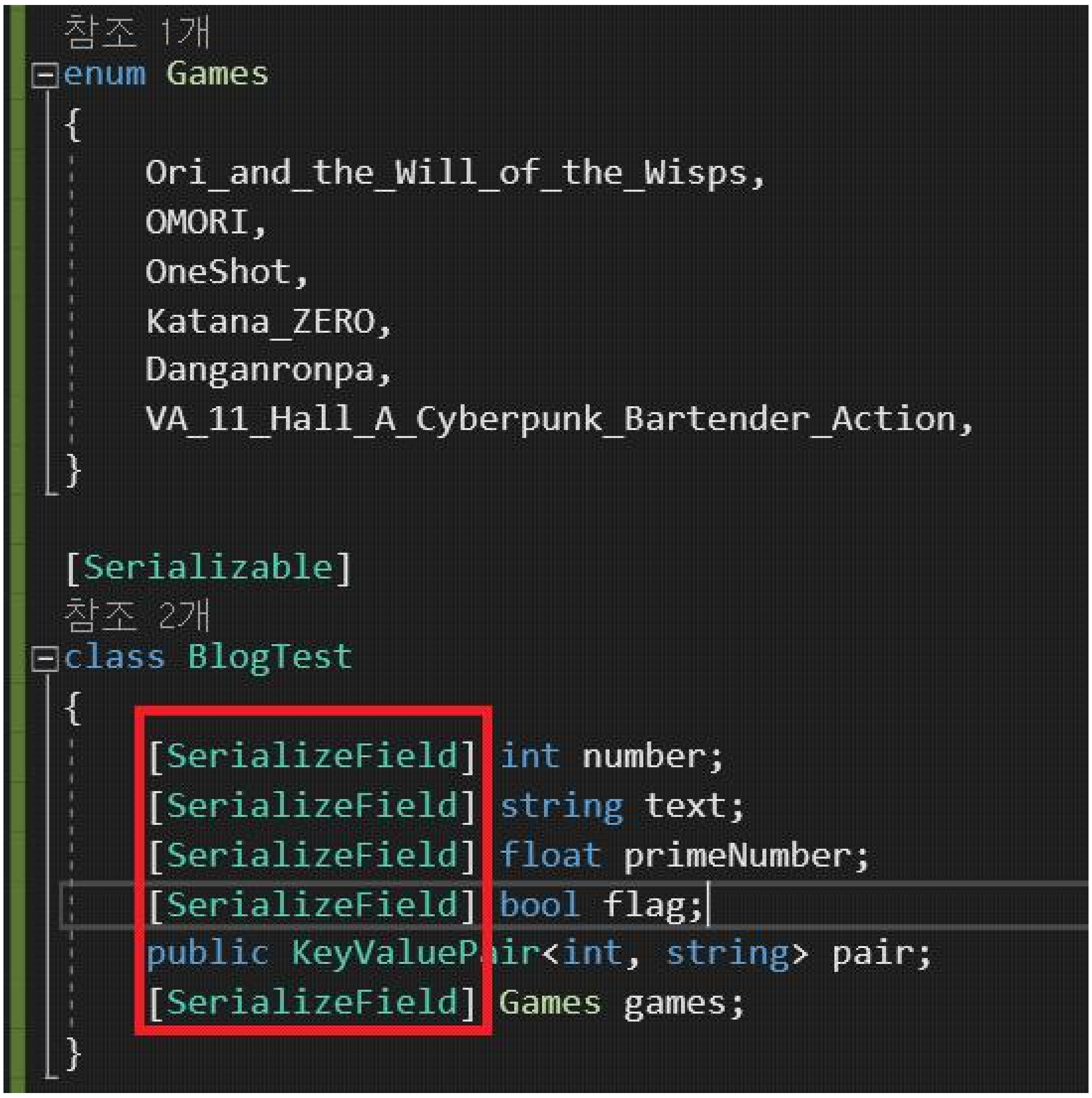
## 1. Load Sample

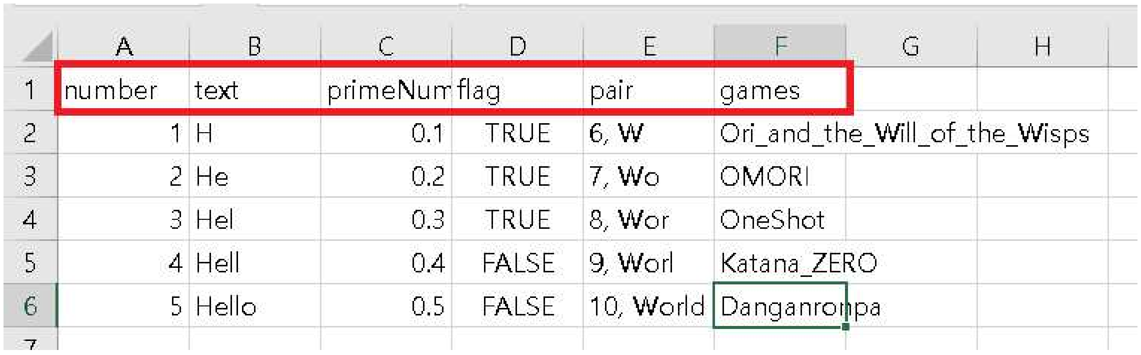
● sample class



```
참조 1개
enum Games
{
    Ori_and_the_Will_of_the_Wisps,
    OMORI,
    OneShot,
    Katana_ZERO,
    Danganronpa,
    VA_11_Hall_A_Cyberpunk_Bartender_Action,
}

[Serializable]
참조 2개
class BlogTest
{
    [SerializeField] int number;
    [SerializeField] string text;
    [SerializeField] float primeNumber;
    [SerializeField] bool flag;
    public KeyValuePair<int, string> pair;
    [SerializeField] Games games;
}
```

And in order to be applied to CsvUtility, it is unconditional!! It must be public or have the [SerializeField] property. Note that this rule is the same as for JsonUtility.

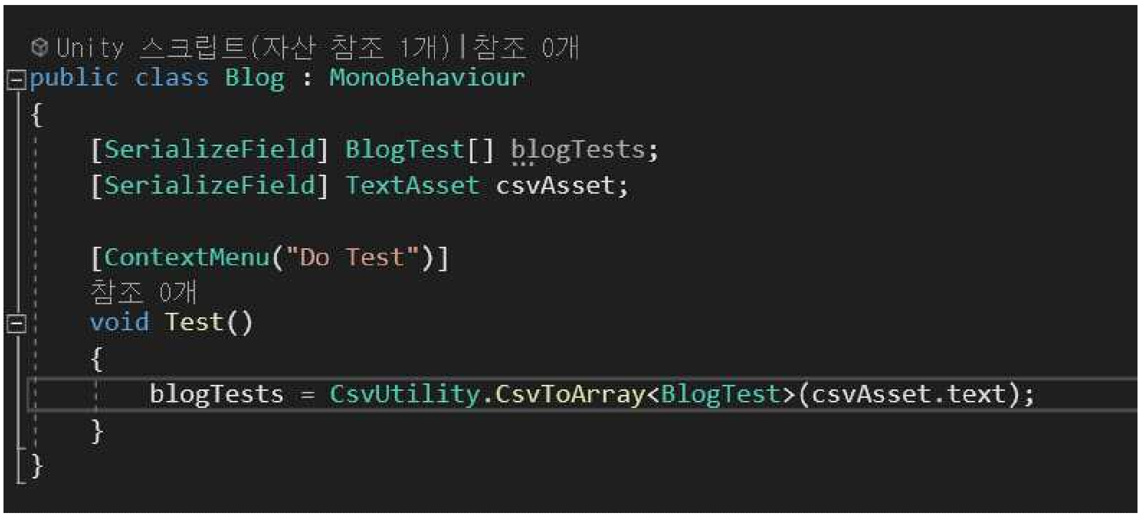
● sample csv file



|   | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 1 | number | text | primeNum | flag | pair | games |  |  |
| 2 | 1 | H | 0.1 | TRUE | 6, W | Ori_and_the_Will_of_the_Wisps |  |  |
| 3 | 2 | He | 0.2 | TRUE | 7, Wo | OMORI |  |  |
| 4 | 3 | Hel | 0.3 | TRUE | 8, Wor | OneShot |  |  |
| 5 | 4 | Hell | 0.4 | FALSE | 9, Worl | Katana_ZERO |  |  |
| 6 | 5 | Hello | 0.5 | FALSE | 10, World | Danganronpa |  |  |

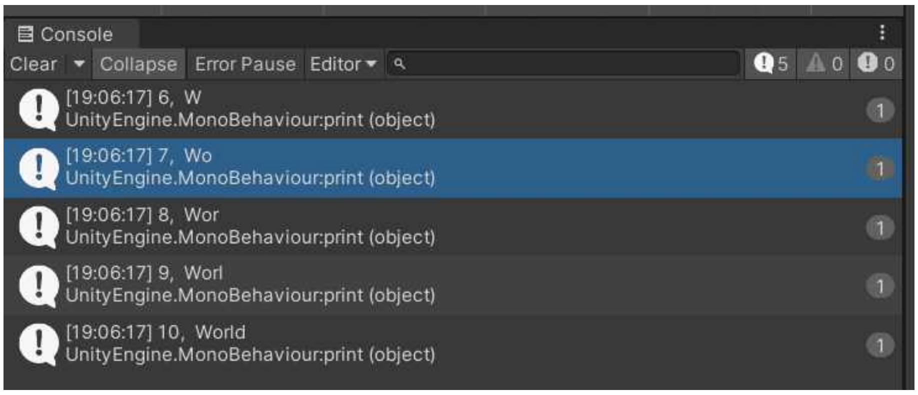
The first line is the variable name, followed by the data.

● code

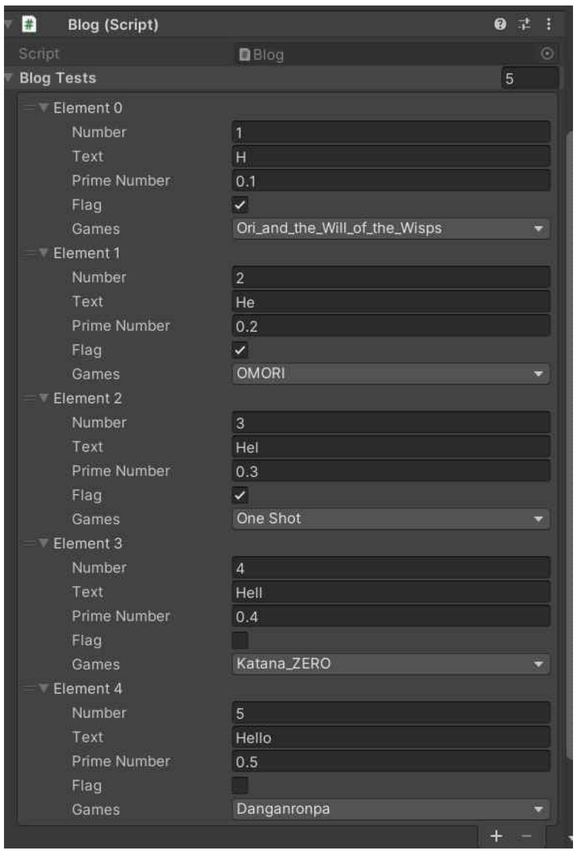


```
Unity 스크립트(자산 참조 1개)|참조 0개
public class Blog : MonoBehaviour
{
    [SerializeField] BlogTest[] blogTests;
    [SerializeField] TextAsset csvAsset;

    [ContextMenu("Do Test")]
    참조 0개
    void Test()
    {
        blogTests = CsvUtility.CsvToArray<BlogTest>(csvAsset.text);
    }
}
```

● result



```
Console
Clear | Collapse | Error Pause | Editor        5  0  0
[19:06:17] 6, W
UnityEngine.MonoBehaviour:print (object)                1
[19:06:17] 7, Wo
UnityEngine.MonoBehaviour:print (object)                1
[19:06:17] 8, Wor
UnityEngine.MonoBehaviour:print (object)                1
[19:06:17] 9, Worl
UnityEngine.MonoBehaviour:print (object)                1
[19:06:17] 10, World
UnityEngine.MonoBehaviour:print (object)                1
```

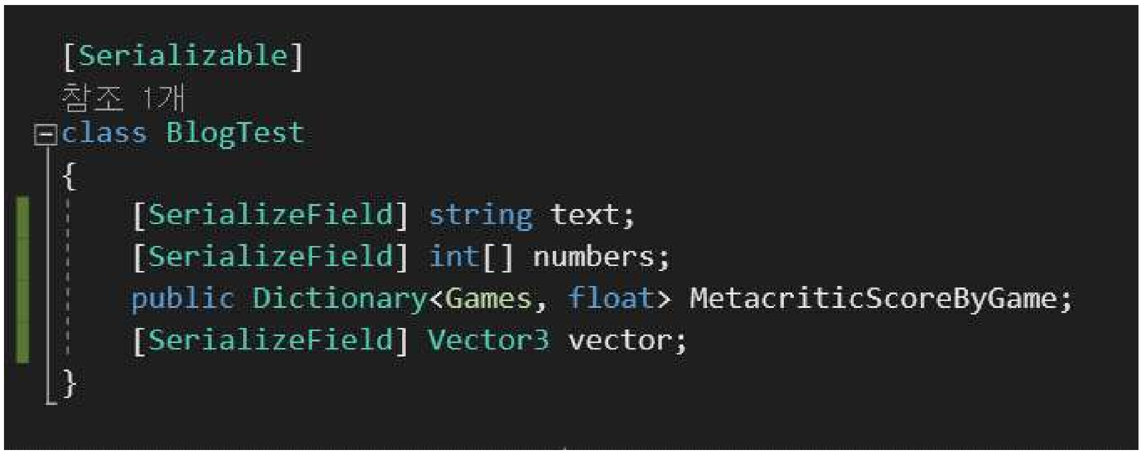


Blog (Script)

| | |
|---|---|
| Script | Blog |
| Blog Tests | 5 |
| Element 0 | |
| Number | 1 |
| Text | H |
| Prime Number | 0.1 |
| Flag | ✓ |
| Games | Ori_and_the_Will_of_the_Wisps |
| Element 1 | |
| Number | 2 |
| Text | He |
| Prime Number | 0.2 |
| Flag | ✓ |
| Games | OMORI |
| Element 2 | |
| Number | 3 |
| Text | Hel |
| Prime Number | 0.3 |
| Flag | ✓ |
| Games | One Shot |
| Element 3 | |
| Number | 4 |
| Text | Hell |
| Prime Number | 0.4 |
| Flag | |
| Games | Katana_ZERO |
| Element 4 | |
| Number | 5 |
| Text | Hello |
| Prime Number | 0.5 |
| Flag | |
| Games | Danganronpa |

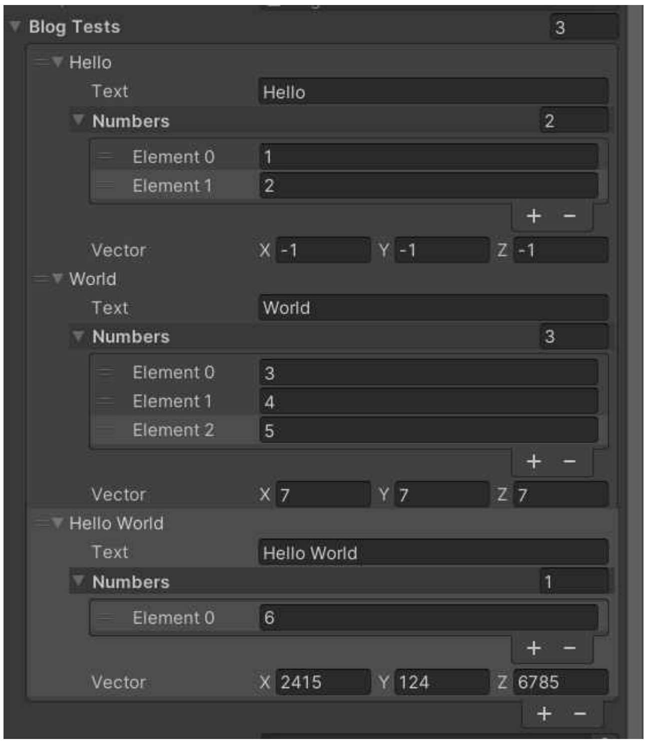
## 2. Save Sample

● sample class



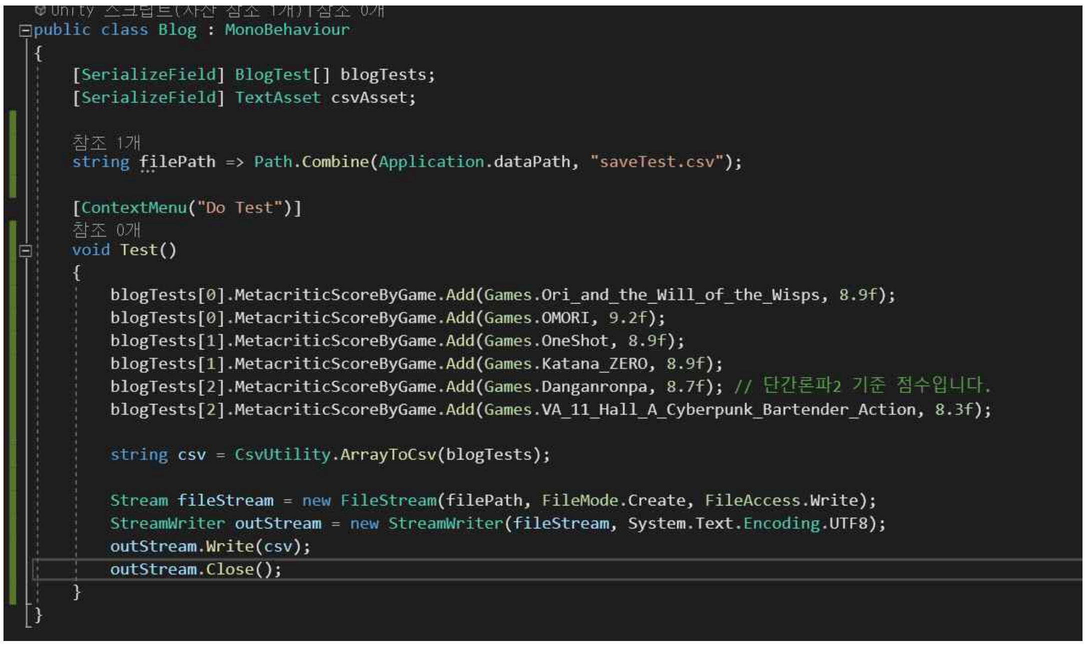
```
[Serializable]
참조 1개
class BlogTest
{
    [SerializeField] string text;
    [SerializeField] int[] numbers;
    public Dictionary<Games, float> MetacriticScoreByGame;
    [SerializeField] Vector3 vector;
}
```

- sample data



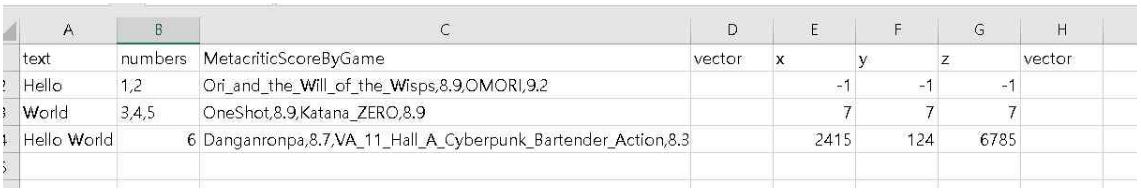
```
Blog Tests                          3
  Hello
    Text          Hello
    Numbers                         2
      Element 0   1
      Element 1   2
    Vector        X -1    Y -1    Z -1
  World
    Text          World
    Numbers                         3
      Element 0   3
      Element 1   4
      Element 2   5
    Vector        X 7     Y 7     Z 7
  Hello World
    Text          Hello World
    Numbers                         1
      Element 0   6
    Vector        X 2415  Y 124   Z 6785
```

- code



```csharp
Unity 스크립트(자산 참조 1개)|참조 0개
public class Blog : MonoBehaviour
{
    [SerializeField] BlogTest[] blogTests;
    [SerializeField] TextAsset csvAsset;

    참조 1개
    string filePath => Path.Combine(Application.dataPath, "saveTest.csv");

    [ContextMenu("Do Test")]
    참조 0개
    void Test()
    {
        blogTests[0].MetacriticScoreByGame.Add(Games.Ori_and_the_Will_of_the_Wisps, 8.9f);
        blogTests[0].MetacriticScoreByGame.Add(Games.OMORI, 9.2f);
        blogTests[1].MetacriticScoreByGame.Add(Games.OneShot, 8.9f);
        blogTests[1].MetacriticScoreByGame.Add(Games.Katana_ZERO, 8.9f);
        blogTests[2].MetacriticScoreByGame.Add(Games.Danganronpa, 8.7f); // 단간론파2 기준 점수입니다.
        blogTests[2].MetacriticScoreByGame.Add(Games.VA_11_Hall_A_Cyberpunk_Bartender_Action, 8.3f);

        string csv = CsvUtility.ArrayToCsv(blogTests);

        Stream fileStream = new FileStream(filePath, FileMode.Create, FileAccess.Write);
        StreamWriter outStream = new StreamWriter(fileStream, System.Text.Encoding.UTF8);
        outStream.Write(csv);
        outStream.Close();
    }
}
```

## ● result



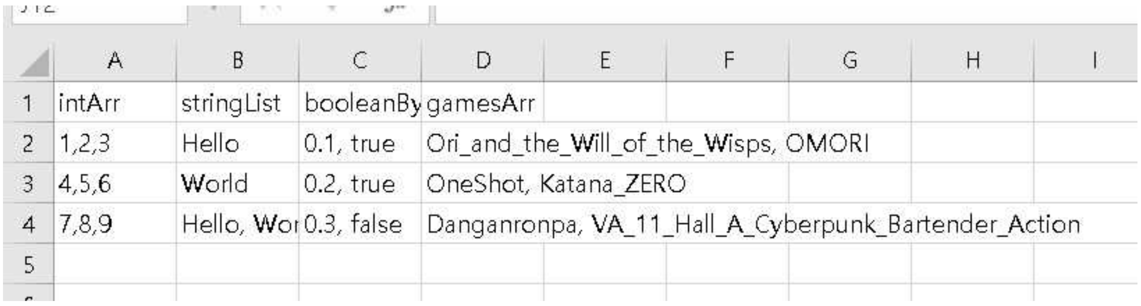
| text | numbers | MetacriticScoreByGame | vector | x | y | z | vector |
|---|---|---|---|---|---|---|---|
| Hello | 1,2 | Ori_and_the_Will_of_the_Wisps,8.9,OMORI,9.2 | | -1 | -1 | -1 | |
| World | 3,4,5 | OneShot,8.9,Katana_ZERO,8.9 | | 7 | 7 | 7 | |
| Hello World | 6 | Danganronpa,8.7,VA_11_Hall_A_Cyberpunk_Bartender_Action,8.3 | | 2415 | 124 | 6785 | |

## 3. Rules

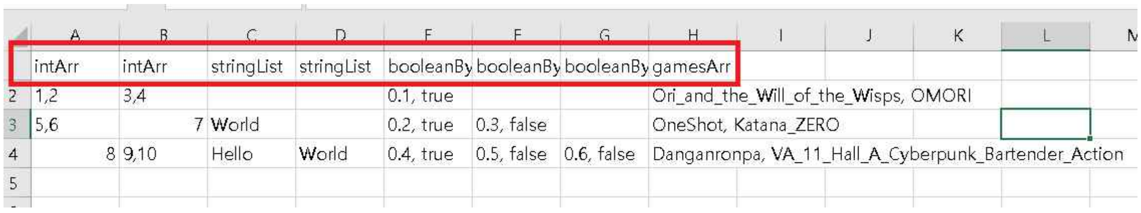
Arrays, lists, and dictionaries separate values with commas(,). At this time, it can be inconvenient to put all values in one cell.

To this end, we made it possible to put data into two or more cells consecutively.

The two pictures below both load the same values



| intArr | stringList | booleanBy | gamesArr |
|---|---|---|---|
| 1,2,3 | Hello | 0.1, true | Ori_and_the_Will_of_the_Wisps, OMORI |
| 4,5,6 | World | 0.2, true | OneShot, Katana_ZERO |
| 7,8,9 | Hello, Wor | 0.3, false | Danganronpa, VA_11_Hall_A_Cyberpunk_Bartender_Action |

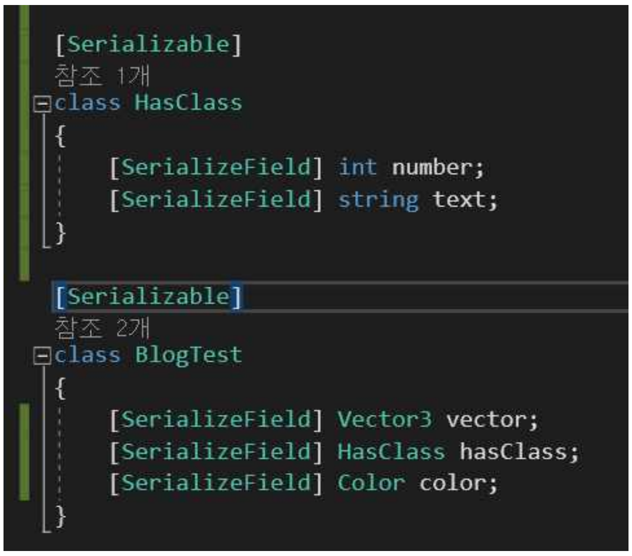


| intArr | intArr | stringList | stringList | booleanBy | booleanBy | booleanBy | gamesArr |
|---|---|---|---|---|---|---|---|
| 1,2 | 3,4 | | | 0.1, true | | | Ori_and_the_Will_of_the_Wisps, OMORI |
| 5,6 | 7 | World | | 0.2, true | 0.3, false | | OneShot, Katana_ZERO |
| 8 | 9,10 | Hello | World | 0.4, true | 0.5, false | 0.6, false | Danganronpa, VA_11_Hall_A_Cyberpunk_Bartender_Action |

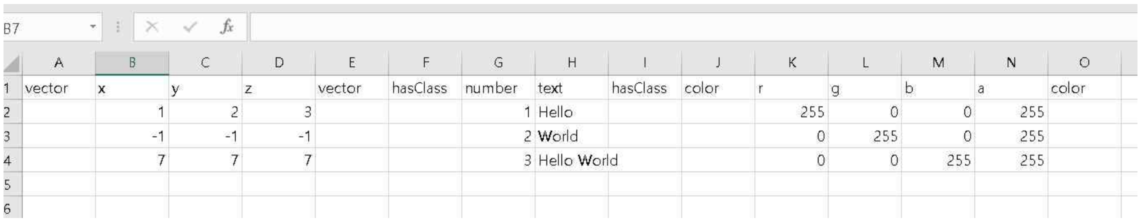
Nested classes put field names at the beginning and end. And in the meantime fill out the fields inside the class.

In case of a Vector3 type variable, first input the variable name, vector. And write the fields x, y, z of Vector3. And finally, write the variable name again.

The pictures below show examples of some classes.



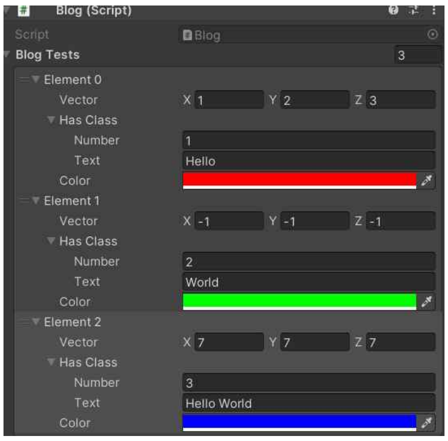
```
[Serializable]
참조 1개
class HasClass
{
    [SerializeField] int number;
    [SerializeField] string text;
}

[Serializable]
참조 2개
class BlogTest
{
    [SerializeField] Vector3 vector;
    [SerializeField] HasClass hasClass;
    [SerializeField] Color color;
}
```



B7

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | vector | x | y | z | vector | hasClass | number | text | hasClass | color | r | g | b | a | color |
| 2 | | 1 | 2 | 3 | | | 1 | Hello | | | 255 | 0 | 0 | 255 | |
| 3 | | -1 | -1 | -1 | | | 2 | World | | | 0 | 255 | 0 | 255 | |
| 4 | | 7 | 7 | 7 | | | 3 | Hello World | | | 0 | 0 | 255 | 255 | |
| 5 | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | |

load result



```
Blog (Script)
Script          Blog
Blog Tests                      3
  Element 0
    Vector      X 1    Y 2    Z 3
    Has Class
      Number    1
      Text      Hello
    Color       🟥
  Element 1
    Vector      X -1   Y -1   Z -1
    Has Class
      Number    2
      Text      World
    Color       🟩
  Element 2
    Vector      X 7    Y 7    Z 7
    Has Class
      Number    3
      Text      Hello World
    Color       🟦
```