Required features

- Provide 2 http endpoints (`<host>/v1/diff/<ID>/left` and `<host>/v1/diff/<ID>/right`) that accept JSON containing base64 encoded binary data on both endpoints.
- The provided data needs to be diff-ed and the results shall be available on a third endpoint (`<host>/v1/diff/<ID>`). The results shall provide the following info in JSON format:
    - If equal return that
    - If not of equal size just return that
    - If of same size provide insight in where the diff are, actual diffs are not needed.
        - So mainly offsets + length in the data

Note, that we are not looking for ideal diffing algorithm.

Make assumptions in the implementation explicit, choices are good but need to be communicated.

Use a Version Control System (preferably Git or Mercurial). Put the source code on a public repository or send it zipped.

Requirements

- Preferably C#. If you are really not comfortable with C#, you can use some other object-oriented and/or functional language, but provide more detailed info for running the solution
- Functionality shall be under integration tests (not full code coverage is required)
- Internal logic shall be under unit tests (not full code coverage is required)
- Documentation in code
- Short readme on usage

See the sample on next site.

Sample input/output

	Request	Response
1	GET /v1/diff/1	404 Not Found

2	PUT /v1/diff/1/left
	{
	"data": "AAAAAA=="
	}
		201 Created

3	GET /v1/diff/1	404 Not Found

4	PUT /v1/diff/1/right
	{
	"data": "AAAAAA=="
	}
		201 Created

5	GET /v1/diff/1	200 OK
		{
		"diffResultType": "Equals"
		}

6	PUT /v1/diff/1/right
	{
	"data": "AQABAQ=="
	}
		201 Created

7	GET /v1/diff/1	200 OK
		{
		"diffResultType": "ContentDoNotMatch",
		"diffs": [
		{
		"offset": 0,
		"length": 1
		},
		{
		"offset": 2,
		"length": 2
		}
		]
		}

8	PUT /v1/diff/1/left
	{
	"data": "AAA="
	}
		201 Created

9	GET /v1/diff/1	200 OK
		{
		"diffResultType": "SizeDoNotMatch"
		}

10	PUT /v1/diff/1/left
	{
	"data": null
	}
		400 Bad Request