Dec 2 - code check and differences

```
In[•]:= SetDirectory[NotebookDirectory[]];
```

```
In[•]:= (data = Characters /@ ReadList["input.txt", String]) ~ Take ~ 4
```

```
Out[•]= {{m, g, d, s, d, w, q, u, l, h, r, i, n, k, a, t, f, j, o, y, z, x, c, b, v, q},
        {m, e, g, s, d, w, p, u, l, h, r, i, n, k, a, s, f, j, d, y, z, x, c, b, v, k},
        {m, e, g, s, d, w, p, u, l, h, m, i, b, k, a, t, f, j, o, y, z, c, c, b, v, q},
        {m, e, g, s, d, w, t, u, o, h, r, i, n, k, a, t, f, j, o, y, z, e, c, b, v, q}}
```

```
In[•]:= hasN[list_, n_] := MemberQ[#[[2]] & /@ Tally[list], n]
```

```
In[•]:= has2 = Select[data, hasN[#, 2] &] // Length
```

```
Out[•]= 248
```

```
In[•]:= has3 = Select[data, hasN[#, 3] &] // Length
```

```
Out[•]= 22
```

The requested checksum for the first part

```
In[•]:= has2 * has3
```

```
Out[•]= 5456
```

```
In[•]:= match =
        Select[Flatten[Table[{d1, d2, HammingDistance[d1, d2]}, {d1, data}, {d2, data}], 1],
          (#[[-1]] == 1) &]
```

```
Out[•]= {{{m, e, g, s, d, l, p, u, l, x, v, i, n, k, a, t, f, j, o, y, z, x, c, b, v, q},
        {m, e, g, s, d, l, p, u, l, x, v, i, n, k, a, t, f, v, o, y, z, x, c, b, v, q}, 1},
        {{m, e, g, s, d, l, p, u, l, x, v, i, n, k, a, t, f, v, o, y, z, x, c, b, v, q},
        {m, e, g, s, d, l, p, u, l, x, v, i, n, k, a, t, f, j, o, y, z, x, c, b, v, q}, 1}}
```

The string needs to have "j" removed

```
In[•]:= StringJoin[match[[1, 1]], ""]
```

```
Out[•]= megsdlpulxvinkatfjoyzxcbvq
```