A

1 2 3 4 5 6

A G A A G G A G C T   C T G   T   C   C   C T T T G T C T

a
b
c
z

(alignment)

B

```
"node": [
  {
    "sequence": "AGAAGGAGCT",
    "id": "1"
  },
  {
    "sequence": "CTG",
    "id": "2"
  },
  {
    "sequence": "T",
    "id": "3"
  },
  {
    "sequence": "C",
    "id": "4"
  },
  {
    "sequence": "C",
    "id": "5"
  },
  {
    "sequence": "CTTTGTCT",
    "id": "6"
  }
],
```

C

```
"edge": [
  {
    "from": "1",
    "to": "2"
  },
  {
    "from": "1",
    "to": "6"
  },
  {
    "from": "2",
    "to": "4"
  },
  {
    "from": "2",
    "to": "3"
  },
  {
    "from": "3",
    "to": "5"
  },
  {
    "from": "4",
    "to": "5"
  },
  {
    "from": "5",
    "to": "6"
  }
],
```

D

```
"path": [
  {
  "name": "a",
  "mapping": [
    {
    "position": {
      "node_id": "1"
    },
    "edit": [
      {
      "from_length": 10,
      "to_length": 10
      }
    ],
    "rank": "1"
    },
    {
    "position": {
      "node_id": "6"
    },
    "edit": [
      {
      "from_length": 8,
      "to_length": 8
      }
    ],
    "rank": "2"
    }
  ]
  }, ...
```

E

```
{
  "name": "z",
  "mapping_quality": 60,
  "score": 28,
  "path": {
    "mapping": [
      {
      "position": {
        "node_id": "1"
      },
      "edit": [
        {
        "from_length": 4,
        "to_length": 4
        },
        {
        "from_length": 1,
        "to_length": 1,
        "sequence": "T"
        },
        {
        "from_length": 5,
        "to_length": 5
        }
      ],
      "rank": "1"
      },...
```

F

1 2 3 4 5 6 7 8 9

A G A A   G   T   G A G C T   C T G   T   C   C   C T T T G T C T

a
b
c
z