Array Abstract Data Type

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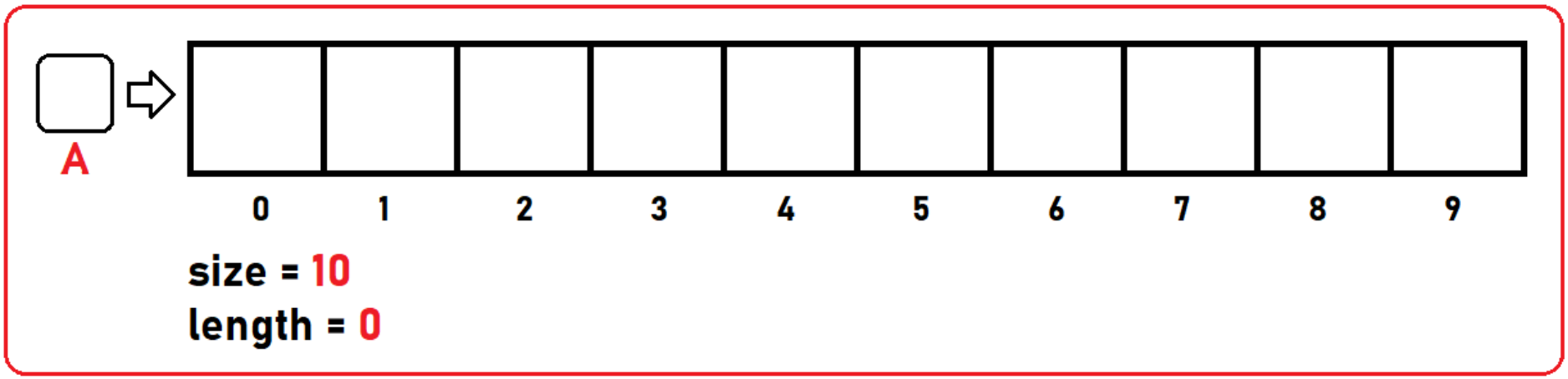
Array as ADT (Abstract Data Type)

- Representation of Data.
- Set of Operations on the Data.

Representation of Data on Array

Data

1. Array Space
2. Size
3. Length (no. of elements)



Inisialisasi Array

```
#include <stdio.h>
struct myArray
{
        float data[100];
        int Size;
        int Length;
};
int main()
{
        struct myArray V;
        V.Size = 100;
        V.Length = 0;
        return 0;
}       content..
```

Contoh Program

Operations on Array Data Structure

1. Display()
2. Add(n) / Append(n)
3. Insert (index, n)
4. Delete (index)
5. Search (n)
6. Get(index)
7. Set(index, x)
8. Max() / Min()
9. Reverse()
10. Shift() / Rotate()

Figure:

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Append

```
struct myArray Append(struct myArray D,float Vi)
{
        if (D.Length<D.Size)
        {
                D.Length ++;
                D.data[D.Length-1]=Vi;
        }
        return D;
}
```

Contoh Lihat Disini

Display/Append

```
void Display(struct myArray D)
{
        int  i;
        for (i=0;i<D.Length;i++)
        {
                printf("%f\n",D.data[i]);
        }

}
```

Contoh Lihat Disini

Implementasi Berbasis Objek

Contoh Dilihat disini