EE6094
CAD for VLSI Design
Programming Assignment 3 Report

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Abstract

using Quine-McCluskey and Petrick_Method to minimize logic.

I. Problem Description

Given a logic minimize it by Quine-McCluskey and Petrick_Method.

II. Program Structure

1. Read input

```
void read_file(ifstream &ifile, ofstream &ofile);
```

2. do Quine-McCluskey algorithm

```
void QMAlgo();
```

3. create table(for Petrick_Method)

```
void createTable();
```

4. do Petrick_Method

```
void Petrick_Method();
```

5. transform POS to SOP

```
void POS2SOP();
```

6. get min SOP

```
void getMinLogic();
```

III. Data Structures / Algorithms Used

Data Structures : map, vector, set
Algorithms : Quine-McCluskey and Petrick_Method

IV. How to Execute

$ make
$ ./PA3_106502013

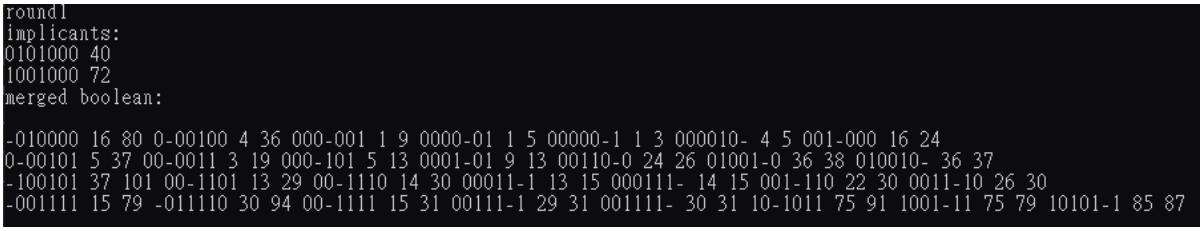
V. Difficulty Encountered

Consider what data structures to use.

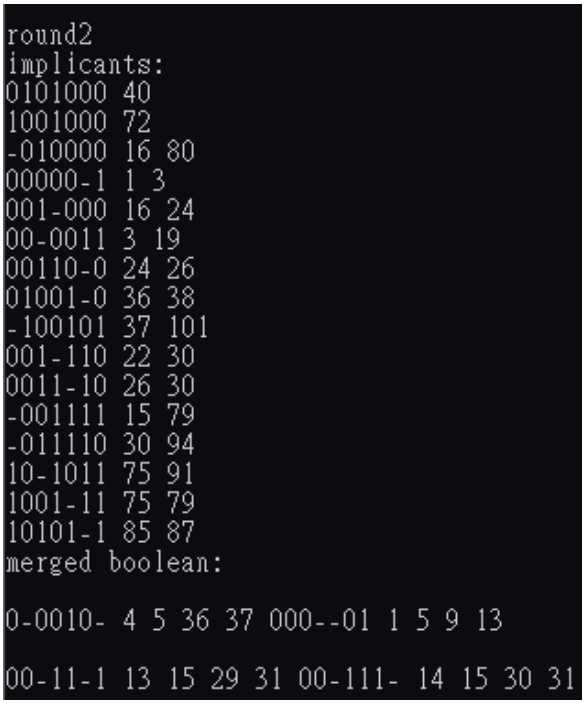
VI. Experimental Results

以 test2 為例：

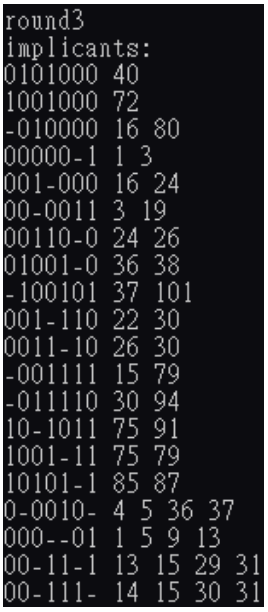
Round1：



Round2：



Round3：



3 round 即合併完畢

Create tabel：