COMP1521 - 2D ARRAYS

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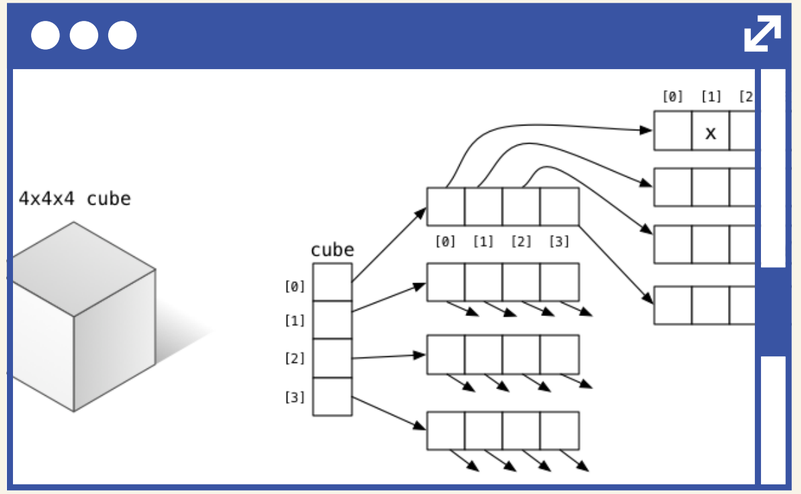
Often when writing large MIPS programs, you will make accidental errors that cause your program to misbehave. Discuss what tools are available to help debug broken MIPS code.

QUESTION 2 - TRANSLATION

QUESTION 3 - TRANSLATION

QUESTION 4 - TRANSLATION

QUESTION 5 - TRANSLATION



QUESTION 6 - TRANSLATION

QUESTION 7

For each of the following struct definitions, what are the likely offset values for each field, and the total size of the struct:

```c
struct _coord {
    double x;
    double y;
};
```

```c
struct _enrolment {
    int stu_id;         // e.g. 5012345
    char course[9];     // e.g. "COMP1521"
    char term[5];       // e.g. "17s2"
    char grade[3];      // e.g. "HD"
    double mark;        // e.g. 87.3
};
```

```c
typedef struct _node Node;
struct _node {
    int value;
    Node *next;
};
```

```c
struct _queue {
    int nitems;     // # items currently in queue
    int head;       // index of oldest item added
    int tail;       // index of most recent item added
    int maxitems;   // size of array
    Item *items;    // malloc'd array of Items
};
```

QUESTION 8 - TRANSLATION

CHALLENGE

Linked Lists

Within this task your exercise is to go over a linked list in MIPS iterate over it and return the largest number.