对15231204\_test.txt进行中间代码生成后，产生如下的中间代码：（在控制台予以了输出）

CONST INTSY 1 con\_int1

CONST INTSY -1 con\_int2

CONST INTSY 34 con\_int3

CONST INTSY 10 con\_int4

CONST CHARSY 65 con\_ch4

INTSY index

INTSY 10 var\_arr

INTSY bigger\_input

CHARSY 10 var\_arr\_ch

FSTART

LABEL find\_bigger

PARA INTSY a

PARA INTSY b

JS a b label0

RETURN a

LABEL label0

ASN 1 TEMP0

ADD a TEMP0 TEMP1

PUSH TEMP1

PUSH b

RCALL find\_bigger TEMP2

RETURN TEMP2

FEND

FSTART

LABEL print\_bigger

PRINTF The bigger number is bigger\_input

FEND

FSTART

LABEL relation

PARA INTSY a

PARA INTSY b

CONST INTSY 0 sml\_eql

CONST INTSY 1 bgr\_eql

INTSY re

JB a b label1

ASN sml\_eql re

PRINTF input3 is smaller OR equal than input4

LABEL label1

JS a b label2

ASN bgr\_eql re

PRINTF input3 is bigger OR equal than input4

LABEL label2

JE a b label3

LABEL label3

JNE a b label4

PRINTF input3 is equal to input4

LABEL label4

JNEI re 0 label6

JBE a b label7

PRINTF input3 is smaller than input4

LABEL label7

JUMP label5

LABEL label6

JNEI re 1 label8

JSE a b label9

PRINTF input3 is bigger than input4

LABEL label9

JUMP label5

LABEL label8

LABEL label5

FEND

FSTART

LABEL main

INTSY input1

INTSY input2

INTSY input3

INTSY input4

SCANF input1

SCANF input2

SCANF input3

SCANF input4

ASN 0 TEMP3

ASN TEMP3 index

PUSH input1

PUSH input2

RCALL find\_bigger TEMP4

ASN TEMP4 bigger\_input

CALL print\_bigger

PUSH input3

PUSH input4

CALL relation

SUB 0 input3 TEMP5

ASN -1 TEMP6

DIV input3 TEMP6 TEMP7

MUL input4 TEMP7 TEMP8

ASN '97' TEMP9

MUL TEMP8 TEMP9 TEMP10

ADD TEMP5 TEMP10 TEMP11

PUSH input3

PUSH input4

RCALL find\_bigger TEMP12

ASN 7 TEMP13

MUL TEMP12 TEMP13 TEMP14

ADD TEMP11 TEMP14 TEMP15

PRINTF TEMP15

LABEL label10

ASN 2 TEMP16

MUL index TEMP16 TEMP17

ASN 1 TEMP18

ADD TEMP17 TEMP18 TEMP19

ASNAR TEMP19 index var\_arr

ADD con\_ch4 index TEMP20

ASNAR TEMP20 index var\_arr\_ch

GETAR var\_arr index TEMP21

PRINTF TEMP21

GETAR var\_arr\_ch index TEMP22

PRINTF TEMP22

ASN 1 TEMP23

ADD index TEMP23 TEMP24

ASN TEMP24 index

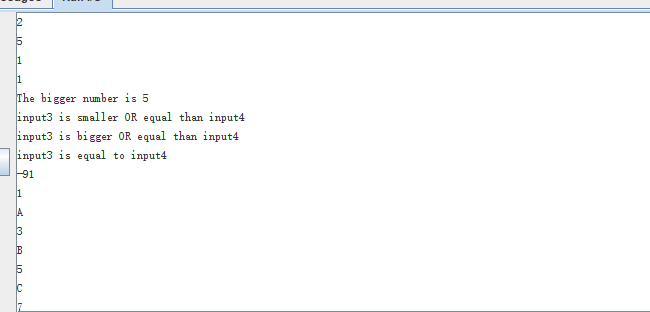
JS index con\_int4 label10

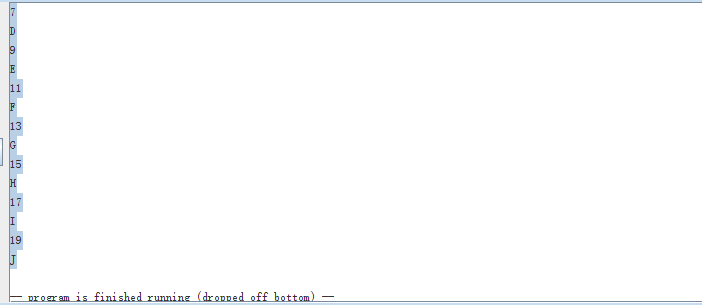
FEND

其生成的mips代码保存在object\_code.asm中：

1. .data
2. addi $s0,$zero,1
3. con\_int1: .word 1
4. addi $s1,$zero,-1
5. con\_int2: .word -1
6. addi $s2,$zero,34
7. con\_int3: .word 34
8. addi $s3,$zero,10
9. con\_int4: .word 10
10. addi $s4,$zero,65
11. con\_ch4: .word 65
12. index: .word 0
13. var\_arr: .word 0:10
14. bigger\_input: .word 0
15. var\_arr\_ch: .word 0:10
16. .text
17. addi $fp,$sp,0
18. j main
19. find\_bigger:
20. sw $ra,4($sp)
21. addi $sp,$sp,-20
22. addi $t0,$fp,-0
23. lw $t0,0($t0)
24. addi $s0,$t0,0
25. addi $t0,$fp,-4
26. lw $t0,0($t0)
27. addi $s1,$t0,0
28. sub $t2,$s0,$s1
29. bltz $t2,label0
30. addi $v0,$s0,0
31. addi $sp,$fp,40
32. lw $fp,-32($sp)
33. lw $ra,-36($sp)
34. lw $s0,0($sp)
35. lw $s1,-4($sp)
36. lw $s2,-8($sp)
37. lw $s3,-12($sp)
38. lw $s4,-16($sp)
39. lw $s5,-20($sp)
40. lw $s6,-24($sp)
41. lw $s7,-28($sp)
42. jr $ra
43. label0:
44. addi $t0,$zero,1
45. addi $t1,$fp,-8
46. sw $t0,0($t1)
47. addi $t1,$fp,-8
48. lw $t1,0($t1)
49. addi $t2,$fp,-12
50. add $t3,$s0,$t1
51. sw $t3,0($t2)
52. sw $s0,0($sp)
53. sw $s1,-4($sp)
54. sw $s2,-8($sp)
55. sw $s3,-12($sp)
56. sw $s4,-16($sp)
57. sw $s5,-20($sp)
58. sw $s6,-24($sp)
59. sw $s7,-28($sp)
60. sw $fp,-32($sp)
61. sw $fp,-32($sp)
62. addi $sp,$sp,-40
63. addi $t0,$fp,-12
64. lw $t0,0($t0)
65. sw $t0,0($sp)
66. sw $s1,-4($sp)
67. addi $fp,$sp,0
68. jal find\_bigger
69. addi $s2,$v0,0
70. addi $sp,$fp,40
71. lw $fp,-32($sp)
72. lw $ra,-36($sp)
73. lw $s0,0($sp)
74. lw $s1,-4($sp)
75. lw $s2,-8($sp)
76. lw $s3,-12($sp)
77. lw $s4,-16($sp)
78. lw $s5,-20($sp)
79. lw $s6,-24($sp)
80. lw $s7,-28($sp)
81. jr $ra
82. addi $sp,$fp,40
83. lw $fp,-32($sp)
84. lw $ra,-36($sp)
85. lw $s0,0($sp)
86. lw $s1,-4($sp)
87. lw $s2,-8($sp)
88. lw $s3,-12($sp)
89. lw $s4,-16($sp)
90. lw $s5,-20($sp)
91. lw $s6,-24($sp)
92. lw $s7,-28($sp)
93. jr $ra
94. print\_bigger:
95. sw $ra,4($sp)
96. addi $sp,$sp,0
97. addi $a0,$zero,84
98. addi $v0,$zero,11
99. syscall
100. addi $a0,$zero,104
101. addi $v0,$zero,11
102. syscall
103. addi $a0,$zero,101
104. addi $v0,$zero,11
105. syscall
106. addi $a0,$zero,32
107. addi $v0,$zero,11
108. syscall
109. addi $a0,$zero,98
110. addi $v0,$zero,11
111. syscall
112. addi $a0,$zero,105
113. addi $v0,$zero,11
114. syscall
115. addi $a0,$zero,103
116. addi $v0,$zero,11
117. syscall
118. addi $a0,$zero,103
119. addi $v0,$zero,11
120. syscall
121. addi $a0,$zero,101
122. addi $v0,$zero,11
123. syscall
124. addi $a0,$zero,114
125. addi $v0,$zero,11
126. syscall
127. addi $a0,$zero,32
128. addi $v0,$zero,11
129. syscall
130. addi $a0,$zero,110
131. addi $v0,$zero,11
132. syscall
133. addi $a0,$zero,117
134. addi $v0,$zero,11
135. syscall
136. addi $a0,$zero,109
137. addi $v0,$zero,11
138. syscall
139. addi $a0,$zero,98
140. addi $v0,$zero,11
141. syscall
142. addi $a0,$zero,101
143. addi $v0,$zero,11
144. syscall
145. addi $a0,$zero,114
146. addi $v0,$zero,11
147. syscall
148. addi $a0,$zero,32
149. addi $v0,$zero,11
150. syscall
151. addi $a0,$zero,105
152. addi $v0,$zero,11
153. syscall
154. addi $a0,$zero,115
155. addi $v0,$zero,11
156. syscall
157. addi $a0,$zero,32
158. addi $v0,$zero,11
159. syscall
160. la $t0,bigger\_input
161. lw $t0,0($t0)
162. addi $a0,$t0,0
163. addi $v0,$zero,1
164. syscall
165. addi $a0,$zero,10
166. addi $v0,$zero,11
167. syscall
168. addi $sp,$fp,40
169. lw $fp,-32($sp)
170. lw $ra,-36($sp)
171. lw $s0,0($sp)
172. lw $s1,-4($sp)
173. lw $s2,-8($sp)
174. lw $s3,-12($sp)
175. lw $s4,-16($sp)
176. lw $s5,-20($sp)
177. lw $s6,-24($sp)
178. lw $s7,-28($sp)
179. jr $ra
180. relation:
181. sw $ra,4($sp)
182. addi $sp,$sp,-20
183. addi $t0,$fp,-0
184. lw $t0,0($t0)
185. addi $s0,$t0,0
186. addi $t0,$fp,-4
187. lw $t0,0($t0)
188. addi $s1,$t0,0
189. addi $s2,$zero,0
190. addi $t0,$zero,0
191. addi $t1,$fp,-8
192. sw $t0,0($t1)
193. addi $s3,$zero,1
194. addi $t0,$zero,1
195. addi $t1,$fp,-12
196. sw $t0,0($t1)
197. sub $t2,$s0,$s1
198. bgtz $t2,label1
199. addi $t1,$fp,-16
200. sw $s2,0($t1)
201. addi $a0,$zero,105
202. addi $v0,$zero,11
203. syscall
204. addi $a0,$zero,110
205. addi $v0,$zero,11
206. syscall
207. addi $a0,$zero,112
208. addi $v0,$zero,11
209. syscall
210. addi $a0,$zero,117
211. addi $v0,$zero,11
212. syscall
213. addi $a0,$zero,116
214. addi $v0,$zero,11
215. syscall
216. addi $a0,$zero,51
217. addi $v0,$zero,11
218. syscall
219. addi $a0,$zero,32
220. addi $v0,$zero,11
221. syscall
222. addi $a0,$zero,105
223. addi $v0,$zero,11
224. syscall
225. addi $a0,$zero,115
226. addi $v0,$zero,11
227. syscall
228. addi $a0,$zero,32
229. addi $v0,$zero,11
230. syscall
231. addi $a0,$zero,115
232. addi $v0,$zero,11
233. syscall
234. addi $a0,$zero,109
235. addi $v0,$zero,11
236. syscall
237. addi $a0,$zero,97
238. addi $v0,$zero,11
239. syscall
240. addi $a0,$zero,108
241. addi $v0,$zero,11
242. syscall
243. addi $a0,$zero,108
244. addi $v0,$zero,11
245. syscall
246. addi $a0,$zero,101
247. addi $v0,$zero,11
248. syscall
249. addi $a0,$zero,114
250. addi $v0,$zero,11
251. syscall
252. addi $a0,$zero,32
253. addi $v0,$zero,11
254. syscall
255. addi $a0,$zero,79
256. addi $v0,$zero,11
257. syscall
258. addi $a0,$zero,82
259. addi $v0,$zero,11
260. syscall
261. addi $a0,$zero,32
262. addi $v0,$zero,11
263. syscall
264. addi $a0,$zero,101
265. addi $v0,$zero,11
266. syscall
267. addi $a0,$zero,113
268. addi $v0,$zero,11
269. syscall
270. addi $a0,$zero,117
271. addi $v0,$zero,11
272. syscall
273. addi $a0,$zero,97
274. addi $v0,$zero,11
275. syscall
276. addi $a0,$zero,108
277. addi $v0,$zero,11
278. syscall
279. addi $a0,$zero,32
280. addi $v0,$zero,11
281. syscall
282. addi $a0,$zero,116
283. addi $v0,$zero,11
284. syscall
285. addi $a0,$zero,104
286. addi $v0,$zero,11
287. syscall
288. addi $a0,$zero,97
289. addi $v0,$zero,11
290. syscall
291. addi $a0,$zero,110
292. addi $v0,$zero,11
293. syscall
294. addi $a0,$zero,32
295. addi $v0,$zero,11
296. syscall
297. addi $a0,$zero,105
298. addi $v0,$zero,11
299. syscall
300. addi $a0,$zero,110
301. addi $v0,$zero,11
302. syscall
303. addi $a0,$zero,112
304. addi $v0,$zero,11
305. syscall
306. addi $a0,$zero,117
307. addi $v0,$zero,11
308. syscall
309. addi $a0,$zero,116
310. addi $v0,$zero,11
311. syscall
312. addi $a0,$zero,52
313. addi $v0,$zero,11
314. syscall
315. addi $a0,$zero,10
316. addi $v0,$zero,11
317. syscall
318. label1:
319. sub $t2,$s0,$s1
320. bltz $t2,label2
321. addi $t1,$fp,-16
322. sw $s3,0($t1)
323. addi $a0,$zero,105
324. addi $v0,$zero,11
325. syscall
326. addi $a0,$zero,110
327. addi $v0,$zero,11
328. syscall
329. addi $a0,$zero,112
330. addi $v0,$zero,11
331. syscall
332. addi $a0,$zero,117
333. addi $v0,$zero,11
334. syscall
335. addi $a0,$zero,116
336. addi $v0,$zero,11
337. syscall
338. addi $a0,$zero,51
339. addi $v0,$zero,11
340. syscall
341. addi $a0,$zero,32
342. addi $v0,$zero,11
343. syscall
344. addi $a0,$zero,105
345. addi $v0,$zero,11
346. syscall
347. addi $a0,$zero,115
348. addi $v0,$zero,11
349. syscall
350. addi $a0,$zero,32
351. addi $v0,$zero,11
352. syscall
353. addi $a0,$zero,98
354. addi $v0,$zero,11
355. syscall
356. addi $a0,$zero,105
357. addi $v0,$zero,11
358. syscall
359. addi $a0,$zero,103
360. addi $v0,$zero,11
361. syscall
362. addi $a0,$zero,103
363. addi $v0,$zero,11
364. syscall
365. addi $a0,$zero,101
366. addi $v0,$zero,11
367. syscall
368. addi $a0,$zero,114
369. addi $v0,$zero,11
370. syscall
371. addi $a0,$zero,32
372. addi $v0,$zero,11
373. syscall
374. addi $a0,$zero,79
375. addi $v0,$zero,11
376. syscall
377. addi $a0,$zero,82
378. addi $v0,$zero,11
379. syscall
380. addi $a0,$zero,32
381. addi $v0,$zero,11
382. syscall
383. addi $a0,$zero,101
384. addi $v0,$zero,11
385. syscall
386. addi $a0,$zero,113
387. addi $v0,$zero,11
388. syscall
389. addi $a0,$zero,117
390. addi $v0,$zero,11
391. syscall
392. addi $a0,$zero,97
393. addi $v0,$zero,11
394. syscall
395. addi $a0,$zero,108
396. addi $v0,$zero,11
397. syscall
398. addi $a0,$zero,32
399. addi $v0,$zero,11
400. syscall
401. addi $a0,$zero,116
402. addi $v0,$zero,11
403. syscall
404. addi $a0,$zero,104
405. addi $v0,$zero,11
406. syscall
407. addi $a0,$zero,97
408. addi $v0,$zero,11
409. syscall
410. addi $a0,$zero,110
411. addi $v0,$zero,11
412. syscall
413. addi $a0,$zero,32
414. addi $v0,$zero,11
415. syscall
416. addi $a0,$zero,105
417. addi $v0,$zero,11
418. syscall
419. addi $a0,$zero,110
420. addi $v0,$zero,11
421. syscall
422. addi $a0,$zero,112
423. addi $v0,$zero,11
424. syscall
425. addi $a0,$zero,117
426. addi $v0,$zero,11
427. syscall
428. addi $a0,$zero,116
429. addi $v0,$zero,11
430. syscall
431. addi $a0,$zero,52
432. addi $v0,$zero,11
433. syscall
434. addi $a0,$zero,10
435. addi $v0,$zero,11
436. syscall
437. label2:
438. beq $s0,$s1,label3
439. label3:
440. bne $s0,$s1,label4
441. addi $a0,$zero,105
442. addi $v0,$zero,11
443. syscall
444. addi $a0,$zero,110
445. addi $v0,$zero,11
446. syscall
447. addi $a0,$zero,112
448. addi $v0,$zero,11
449. syscall
450. addi $a0,$zero,117
451. addi $v0,$zero,11
452. syscall
453. addi $a0,$zero,116
454. addi $v0,$zero,11
455. syscall
456. addi $a0,$zero,51
457. addi $v0,$zero,11
458. syscall
459. addi $a0,$zero,32
460. addi $v0,$zero,11
461. syscall
462. addi $a0,$zero,105
463. addi $v0,$zero,11
464. syscall
465. addi $a0,$zero,115
466. addi $v0,$zero,11
467. syscall
468. addi $a0,$zero,32
469. addi $v0,$zero,11
470. syscall
471. addi $a0,$zero,101
472. addi $v0,$zero,11
473. syscall
474. addi $a0,$zero,113
475. addi $v0,$zero,11
476. syscall
477. addi $a0,$zero,117
478. addi $v0,$zero,11
479. syscall
480. addi $a0,$zero,97
481. addi $v0,$zero,11
482. syscall
483. addi $a0,$zero,108
484. addi $v0,$zero,11
485. syscall
486. addi $a0,$zero,32
487. addi $v0,$zero,11
488. syscall
489. addi $a0,$zero,116
490. addi $v0,$zero,11
491. syscall
492. addi $a0,$zero,111
493. addi $v0,$zero,11
494. syscall
495. addi $a0,$zero,32
496. addi $v0,$zero,11
497. syscall
498. addi $a0,$zero,105
499. addi $v0,$zero,11
500. syscall
501. addi $a0,$zero,110
502. addi $v0,$zero,11
503. syscall
504. addi $a0,$zero,112
505. addi $v0,$zero,11
506. syscall
507. addi $a0,$zero,117
508. addi $v0,$zero,11
509. syscall
510. addi $a0,$zero,116
511. addi $v0,$zero,11
512. syscall
513. addi $a0,$zero,52
514. addi $v0,$zero,11
515. syscall
516. addi $a0,$zero,10
517. addi $v0,$zero,11
518. syscall
519. label4:
520. addi $t0,$fp,-16
521. lw $t0,0($t0)
522. addi $t1,$zero,0
523. bne $t0,$t1,label6
524. sub $t2,$s0,$s1
525. bgez $t2,label7
526. addi $a0,$zero,105
527. addi $v0,$zero,11
528. syscall
529. addi $a0,$zero,110
530. addi $v0,$zero,11
531. syscall
532. addi $a0,$zero,112
533. addi $v0,$zero,11
534. syscall
535. addi $a0,$zero,117
536. addi $v0,$zero,11
537. syscall
538. addi $a0,$zero,116
539. addi $v0,$zero,11
540. syscall
541. addi $a0,$zero,51
542. addi $v0,$zero,11
543. syscall
544. addi $a0,$zero,32
545. addi $v0,$zero,11
546. syscall
547. addi $a0,$zero,105
548. addi $v0,$zero,11
549. syscall
550. addi $a0,$zero,115
551. addi $v0,$zero,11
552. syscall
553. addi $a0,$zero,32
554. addi $v0,$zero,11
555. syscall
556. addi $a0,$zero,115
557. addi $v0,$zero,11
558. syscall
559. addi $a0,$zero,109
560. addi $v0,$zero,11
561. syscall
562. addi $a0,$zero,97
563. addi $v0,$zero,11
564. syscall
565. addi $a0,$zero,108
566. addi $v0,$zero,11
567. syscall
568. addi $a0,$zero,108
569. addi $v0,$zero,11
570. syscall
571. addi $a0,$zero,101
572. addi $v0,$zero,11
573. syscall
574. addi $a0,$zero,114
575. addi $v0,$zero,11
576. syscall
577. addi $a0,$zero,32
578. addi $v0,$zero,11
579. syscall
580. addi $a0,$zero,116
581. addi $v0,$zero,11
582. syscall
583. addi $a0,$zero,104
584. addi $v0,$zero,11
585. syscall
586. addi $a0,$zero,97
587. addi $v0,$zero,11
588. syscall
589. addi $a0,$zero,110
590. addi $v0,$zero,11
591. syscall
592. addi $a0,$zero,32
593. addi $v0,$zero,11
594. syscall
595. addi $a0,$zero,105
596. addi $v0,$zero,11
597. syscall
598. addi $a0,$zero,110
599. addi $v0,$zero,11
600. syscall
601. addi $a0,$zero,112
602. addi $v0,$zero,11
603. syscall
604. addi $a0,$zero,117
605. addi $v0,$zero,11
606. syscall
607. addi $a0,$zero,116
608. addi $v0,$zero,11
609. syscall
610. addi $a0,$zero,52
611. addi $v0,$zero,11
612. syscall
613. addi $a0,$zero,10
614. addi $v0,$zero,11
615. syscall
616. label7:
617. j label5
618. label6:
619. addi $t0,$fp,-16
620. lw $t0,0($t0)
621. addi $t1,$zero,1
622. bne $t0,$t1,label8
623. sub $t2,$s0,$s1
624. blez $t2,label9
625. addi $a0,$zero,105
626. addi $v0,$zero,11
627. syscall
628. addi $a0,$zero,110
629. addi $v0,$zero,11
630. syscall
631. addi $a0,$zero,112
632. addi $v0,$zero,11
633. syscall
634. addi $a0,$zero,117
635. addi $v0,$zero,11
636. syscall
637. addi $a0,$zero,116
638. addi $v0,$zero,11
639. syscall
640. addi $a0,$zero,51
641. addi $v0,$zero,11
642. syscall
643. addi $a0,$zero,32
644. addi $v0,$zero,11
645. syscall
646. addi $a0,$zero,105
647. addi $v0,$zero,11
648. syscall
649. addi $a0,$zero,115
650. addi $v0,$zero,11
651. syscall
652. addi $a0,$zero,32
653. addi $v0,$zero,11
654. syscall
655. addi $a0,$zero,98
656. addi $v0,$zero,11
657. syscall
658. addi $a0,$zero,105
659. addi $v0,$zero,11
660. syscall
661. addi $a0,$zero,103
662. addi $v0,$zero,11
663. syscall
664. addi $a0,$zero,103
665. addi $v0,$zero,11
666. syscall
667. addi $a0,$zero,101
668. addi $v0,$zero,11
669. syscall
670. addi $a0,$zero,114
671. addi $v0,$zero,11
672. syscall
673. addi $a0,$zero,32
674. addi $v0,$zero,11
675. syscall
676. addi $a0,$zero,116
677. addi $v0,$zero,11
678. syscall
679. addi $a0,$zero,104
680. addi $v0,$zero,11
681. syscall
682. addi $a0,$zero,97
683. addi $v0,$zero,11
684. syscall
685. addi $a0,$zero,110
686. addi $v0,$zero,11
687. syscall
688. addi $a0,$zero,32
689. addi $v0,$zero,11
690. syscall
691. addi $a0,$zero,105
692. addi $v0,$zero,11
693. syscall
694. addi $a0,$zero,110
695. addi $v0,$zero,11
696. syscall
697. addi $a0,$zero,112
698. addi $v0,$zero,11
699. syscall
700. addi $a0,$zero,117
701. addi $v0,$zero,11
702. syscall
703. addi $a0,$zero,116
704. addi $v0,$zero,11
705. syscall
706. addi $a0,$zero,52
707. addi $v0,$zero,11
708. syscall
709. addi $a0,$zero,10
710. addi $v0,$zero,11
711. syscall
712. label9:
713. j label5
714. label8:
715. label5:
716. addi $sp,$fp,40
717. lw $fp,-32($sp)
718. lw $ra,-36($sp)
719. lw $s0,0($sp)
720. lw $s1,-4($sp)
721. lw $s2,-8($sp)
722. lw $s3,-12($sp)
723. lw $s4,-16($sp)
724. lw $s5,-20($sp)
725. lw $s6,-24($sp)
726. lw $s7,-28($sp)
727. jr $ra
728. main:
729. addi $sp,$sp,-104
730. addi $v0,$zero,5
731. syscall
732. addi $t0,$fp,-0
733. sw $v0,0($t0)
734. addi $v0,$zero,5
735. syscall
736. addi $t0,$fp,-4
737. sw $v0,0($t0)
738. addi $v0,$zero,5
739. syscall
740. addi $t0,$fp,-8
741. sw $v0,0($t0)
742. addi $v0,$zero,5
743. syscall
744. addi $t0,$fp,-12
745. sw $v0,0($t0)
746. addi $t0,$zero,0
747. addi $t1,$fp,-16
748. sw $t0,0($t1)
749. addi $t0,$fp,-16
750. lw $t0,0($t0)
751. la $t1,index
752. sw $t0,0($t1)
753. sw $s0,0($sp)
754. sw $s1,-4($sp)
755. sw $s2,-8($sp)
756. sw $s3,-12($sp)
757. sw $s4,-16($sp)
758. sw $s5,-20($sp)
759. sw $s6,-24($sp)
760. sw $s7,-28($sp)
761. sw $fp,-32($sp)
762. sw $fp,-32($sp)
763. addi $sp,$sp,-40
764. addi $t0,$fp,-0
765. lw $t0,0($t0)
766. sw $t0,0($sp)
767. addi $t0,$fp,-4
768. lw $t0,0($t0)
769. sw $t0,-4($sp)
770. addi $fp,$sp,0
771. jal find\_bigger
772. addi $s0,$v0,0
773. la $t1,bigger\_input
774. sw $s0,0($t1)
775. sw $s0,0($sp)
776. sw $s1,-4($sp)
777. sw $s2,-8($sp)
778. sw $s3,-12($sp)
779. sw $s4,-16($sp)
780. sw $s5,-20($sp)
781. sw $s6,-24($sp)
782. sw $s7,-28($sp)
783. sw $fp,-32($sp)
784. sw $fp,-32($sp)
785. addi $sp,$sp,-40
786. addi $fp,$sp,0
787. jal print\_bigger
788. sw $s0,0($sp)
789. sw $s1,-4($sp)
790. sw $s2,-8($sp)
791. sw $s3,-12($sp)
792. sw $s4,-16($sp)
793. sw $s5,-20($sp)
794. sw $s6,-24($sp)
795. sw $s7,-28($sp)
796. sw $fp,-32($sp)
797. sw $fp,-32($sp)
798. addi $sp,$sp,-40
799. addi $t0,$fp,-8
800. lw $t0,0($t0)
801. sw $t0,0($sp)
802. addi $t0,$fp,-12
803. lw $t0,0($t0)
804. sw $t0,-4($sp)
805. addi $fp,$sp,0
806. jal relation
807. addi $t0,$zero,0
808. addi $t1,$fp,-8
809. lw $t1,0($t1)
810. addi $t2,$fp,-20
811. sub $t3,$t0,$t1
812. sw $t3,0($t2)
813. addi $t0,$zero,-1
814. addi $t1,$fp,-24
815. sw $t0,0($t1)
816. addi $t0,$fp,-8
817. lw $t0,0($t0)
818. addi $t1,$fp,-24
819. lw $t1,0($t1)
820. addi $t2,$fp,-28
821. div $t0,$t1
822. mflo $t3
823. sw $t3,0($t2)
824. addi $t0,$fp,-12
825. lw $t0,0($t0)
826. addi $t1,$fp,-28
827. lw $t1,0($t1)
828. addi $t2,$fp,-32
829. mult $t0,$t1
830. mflo $t3
831. sw $t3,0($t2)
832. addi $t0,$zero,97
833. addi $t1,$fp,-36
834. sw $t0,0($t1)
835. addi $t0,$fp,-32
836. lw $t0,0($t0)
837. addi $t1,$fp,-36
838. lw $t1,0($t1)
839. addi $t2,$fp,-40
840. mult $t0,$t1
841. mflo $t3
842. sw $t3,0($t2)
843. addi $t0,$fp,-20
844. lw $t0,0($t0)
845. addi $t1,$fp,-40
846. lw $t1,0($t1)
847. addi $t2,$fp,-44
848. add $t3,$t0,$t1
849. sw $t3,0($t2)
850. sw $s0,0($sp)
851. sw $s1,-4($sp)
852. sw $s2,-8($sp)
853. sw $s3,-12($sp)
854. sw $s4,-16($sp)
855. sw $s5,-20($sp)
856. sw $s6,-24($sp)
857. sw $s7,-28($sp)
858. sw $fp,-32($sp)
859. sw $fp,-32($sp)
860. addi $sp,$sp,-40
861. addi $t0,$fp,-8
862. lw $t0,0($t0)
863. sw $t0,0($sp)
864. addi $t0,$fp,-12
865. lw $t0,0($t0)
866. sw $t0,-4($sp)
867. addi $fp,$sp,0
868. jal find\_bigger
869. addi $s1,$v0,0
870. addi $t0,$zero,7
871. addi $t1,$fp,-48
872. sw $t0,0($t1)
873. addi $t1,$fp,-48
874. lw $t1,0($t1)
875. addi $t2,$fp,-52
876. mult $s1,$t1
877. mflo $t3
878. sw $t3,0($t2)
879. addi $t0,$fp,-44
880. lw $t0,0($t0)
881. addi $t1,$fp,-52
882. lw $t1,0($t1)
883. addi $t2,$fp,-56
884. add $t3,$t0,$t1
885. sw $t3,0($t2)
886. addi $t0,$fp,-56
887. lw $t0,0($t0)
888. addi $a0,$t0,0
889. addi $v0,$zero,1
890. syscall
891. addi $a0,$zero,10
892. addi $v0,$zero,11
893. syscall
894. label10:
895. addi $t0,$zero,2
896. addi $t1,$fp,-60
897. sw $t0,0($t1)
898. la $t0,index
899. lw $t0,0($t0)
900. addi $t1,$fp,-60
901. lw $t1,0($t1)
902. addi $t2,$fp,-64
903. mult $t0,$t1
904. mflo $t3
905. sw $t3,0($t2)
906. addi $t0,$zero,1
907. addi $t1,$fp,-68
908. sw $t0,0($t1)
909. addi $t0,$fp,-64
910. lw $t0,0($t0)
911. addi $t1,$fp,-68
912. lw $t1,0($t1)
913. addi $t2,$fp,-72
914. add $t3,$t0,$t1
915. sw $t3,0($t2)
916. la $t0,index
917. lw $t0,0($t0)
918. addi $t1,$zero,4
919. mult $t0,$t1
920. mflo $t0
921. la $t1,var\_arr
922. add $t0,$t1,$t0
923. addi $t1,$fp,-72
924. lw $t1,0($t1)
925. sw $t1,0($t0)
926. la $t0,con\_ch4
927. lw $t0,0($t0)
928. la $t1,index
929. lw $t1,0($t1)
930. addi $t2,$fp,-76
931. add $t3,$t0,$t1
932. sw $t3,0($t2)
933. la $t0,index
934. lw $t0,0($t0)
935. addi $t1,$zero,4
936. mult $t0,$t1
937. mflo $t0
938. la $t1,var\_arr\_ch
939. add $t0,$t1,$t0
940. addi $t1,$fp,-76
941. lw $t1,0($t1)
942. sw $t1,0($t0)
943. la $t0,index
944. lw $t0,0($t0)
945. addi $t1,$zero,4
946. mult $t0,$t1
947. mflo $t0
948. la $t1,var\_arr
949. add $t0,$t1,$t0
950. lw $t0,0($t0)
951. addi $t1,$fp,-80
952. sw $t0,0($t1)
953. addi $t0,$fp,-80
954. lw $t0,0($t0)
955. addi $a0,$t0,0
956. addi $v0,$zero,1
957. syscall
958. addi $a0,$zero,10
959. addi $v0,$zero,11
960. syscall
961. la $t0,index
962. lw $t0,0($t0)
963. addi $t1,$zero,4
964. mult $t0,$t1
965. mflo $t0
966. la $t1,var\_arr\_ch
967. add $t0,$t1,$t0
968. lw $t0,0($t0)
969. addi $t1,$fp,-84
970. sw $t0,0($t1)
971. addi $t0,$fp,-84
972. lw $t0,0($t0)
973. addi $a0,$t0,0
974. addi $v0,$zero,11
975. syscall
976. addi $a0,$zero,10
977. addi $v0,$zero,11
978. syscall
979. addi $t0,$zero,1
980. addi $t1,$fp,-88
981. sw $t0,0($t1)
982. la $t0,index
983. lw $t0,0($t0)
984. addi $t1,$fp,-88
985. lw $t1,0($t1)
986. addi $t2,$fp,-92
987. add $t3,$t0,$t1
988. sw $t3,0($t2)
989. addi $t0,$fp,-92
990. lw $t0,0($t0)
991. la $t1,index
992. sw $t0,0($t1)
993. la $t0,index
994. lw $t0,0($t0)
995. la $t1,con\_int4
996. lw $t1,0($t1)
997. sub $t2,$t0,$t1
998. bltz $t2,label10
999. EXIT:

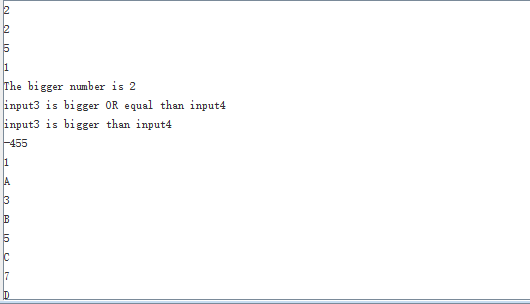
将其放入mars中进行模拟，输入2 5 1 1，得到结果：

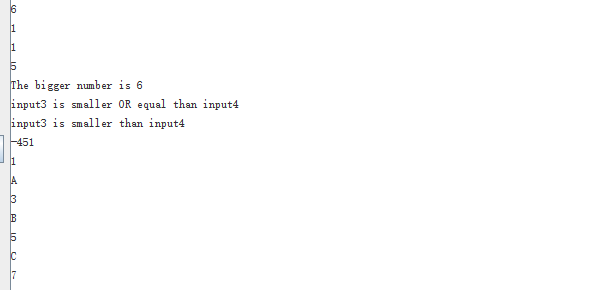




与预期结果相符合，实现了基本的函数递归调用。

而对另外两组输入进行测试，也能得到预期结果，说明mips代码具有初步的正确性：





但目前的mips代码十分初步，寄存器的利用率很低，大多数操作都是与内存之间进行数据交换，效率不高，同时中间代码也还未优化。接下来将着手于优化方面，利用数据流分析提高全局寄存器的利用率，同时利用dag图优化中间代码。