leoria de la Computación Lunes 16/Septiembre/1024 Programa AFD Adrian Conzález Domínguez #include <stdio.h> int automaton (void); int choose\_column (int alphabet\_length, char alphabet [], char c); int is\_final(int finals\_length, int finals I] int state); char result [100] int result\_index; HILE \* input Sile; int man() ( I I takes) along this inpat file stding while (! feof (input\_Sile)) { result\_index=0; 0= state In if (automoton ()) { result Tresult\_index='\0'; printf ("Cadena válida: /.s/n", resalt); Jelse { 3 prints ("Cadena invalida \n"); result [restalt unlex++]=c return O; Sinds\_length, Sinds, states seturn is finally state trades state

// Automota A // Automata B int automation (void) { int automaton(void) { Int states [][3]={ int states [][3]={ 10, 1, 33, 110 {2,1,4},10 20,2,33,1/1 11, 1, 43, 111 £2,2,33,1/2 {2,3,4},112 £3,3,37, 1/3 {2,3,43,113 {4, 4, 43 114 int finals []={2}; int finals length =1; int finals []={1,3}; char alphabet []={a', b'}; int finals\_length= 2; 10 mom In int alphabet length=2; char alphabet[]={a, b'}; int state = D; int alphabet\_length=2, char ci int state = 0; De xibing Alicen whilel char cg ) (Onotomodus) } ! feof (input\_f, le) & & Cc= getc(input\_f, le)) != 'In' while (1 = when Albertal) was Seof (input\_file) & & (c=getc(inpat\_file)) = 'In' result [result\_index ++]=c; int column=choose\_column[ result\_index++]=c; alphabet\_length alphabet, e int column=choose\_column ( alphabet\_length, alphabet, c state = states [state][column]; state=states[state][column]; return 15\_final (
finals\_length, finals, state
). return is\_finall
finals\_length, finals, state

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int choose_column (int alphabet_length, char alphabet[], char c){
  int i=0;
  while (i < alphabet_length) {
  if (alphabet[i]==c) return i;
return i;
int is final (int finals_length, int finals[], int state) {
  inf i=0;
  whileli finals_ length){
    if(finals[i]==state) return 1;
   return O;
```