// 1. Print the ASCII table (0 to 255)

#include <stdio.h>

int main() {

for (int i = 0; i <= 255; i++) {

printf("%3d : %c\n", i, (char)i);

}

return 0;

}

// 2. Find whether a character is uppercase, lowercase, digit, or special

#include <stdio.h>

#include <ctype.h>

int main() {

char ch = 'A';

if (isupper(ch))

printf("%c is uppercase\n", ch);

else if (islower(ch))

printf("%c is lowercase\n", ch);

else if (isdigit(ch))

printf("%c is a digit\n", ch);

else

printf("%c is a special character\n", ch);

return 0;

}

// 3. Convert an entire string to ASCII values

#include <stdio.h>

int main() {

char str[] = "Hello";

printf("ASCII values: ");

for (int i = 0; str[i]; i++) {

printf("%d ", (int)str[i]);

}

printf("\n");

return 0;

}

// 4. Convert ASCII values back to characters

#include <stdio.h>

int main() {

int ascii[] = {72, 101, 108, 108, 111, 0}; // "Hello"

printf("Characters: ");

for (int i = 0; ascii[i] != 0; i++) {

printf("%c", (char)ascii[i]);

}

printf("\n");

return 0;

}

// 5. Count uppercase letters in a string

#include <stdio.h>

#include <ctype.h>

int main() {

char str[] = "Count Uppercase Letters";

int count = 0;

for (int i = 0; str[i]; i++) {

if (isupper(str[i]))

count++;

}

printf("Uppercase letters: %d\n", count);

return 0;

}

// 6. Count lowercase letters in a string

#include <stdio.h>

#include <ctype.h>

int main() {

char str[] = "Count Lowercase Letters";

int count = 0;

for (int i = 0; str[i]; i++) {

if (islower(str[i]))

count++;

}

printf("Lowercase letters: %d\n", count);

return 0;

}

// 7. Find the first non-repeating character

#include <stdio.h>

#include <string.h>

int main() {

char str[] = "swiss";

int freq[256] = {0};

int len = strlen(str);

for (int i = 0; i < len; i++) {

freq[(unsigned char)str[i]]++;

}

for (int i = 0; i < len; i++) {

if (freq[(unsigned char)str[i]] == 1) {

printf("First non-repeating character: %c\n", str[i]);

return 0;

}

}

printf("No non-repeating character found.\n");

return 0;

}

// 8. Replace digits in string with their ASCII equivalent

#include <stdio.h>

#include <ctype.h>

int main() {

char str[] = "A1B2C3";

printf("Replaced string: ");

for (int i = 0; str[i]; i++) {

if (isdigit(str[i]))

printf("%d", (int)str[i]);

else

putchar(str[i]);

}

printf("\n");

return 0;

}

// 9. Compare two characters based on ASCII

#include <stdio.h>

int main() {

char ch1 = 'A', ch2 = 'a';

if (ch1 == ch2)

printf("%c and %c are equal\n", ch1, ch2);

else if (ch1 > ch2)

printf("%c has higher ASCII value than %c\n", ch1, ch2);

else

printf("%c has lower ASCII value than %c\n", ch1, ch2);

return 0;

}

// 10. Print the next 5 ASCII characters after a given character

#include <stdio.h>

int main() {

char ch = 'A';

printf("Next 5 ASCII characters after %c:\n", ch);

for (int i = 1; i <= 5; i++) {

printf("%c ", ch + i);

}

printf("\n");

return 0;

}