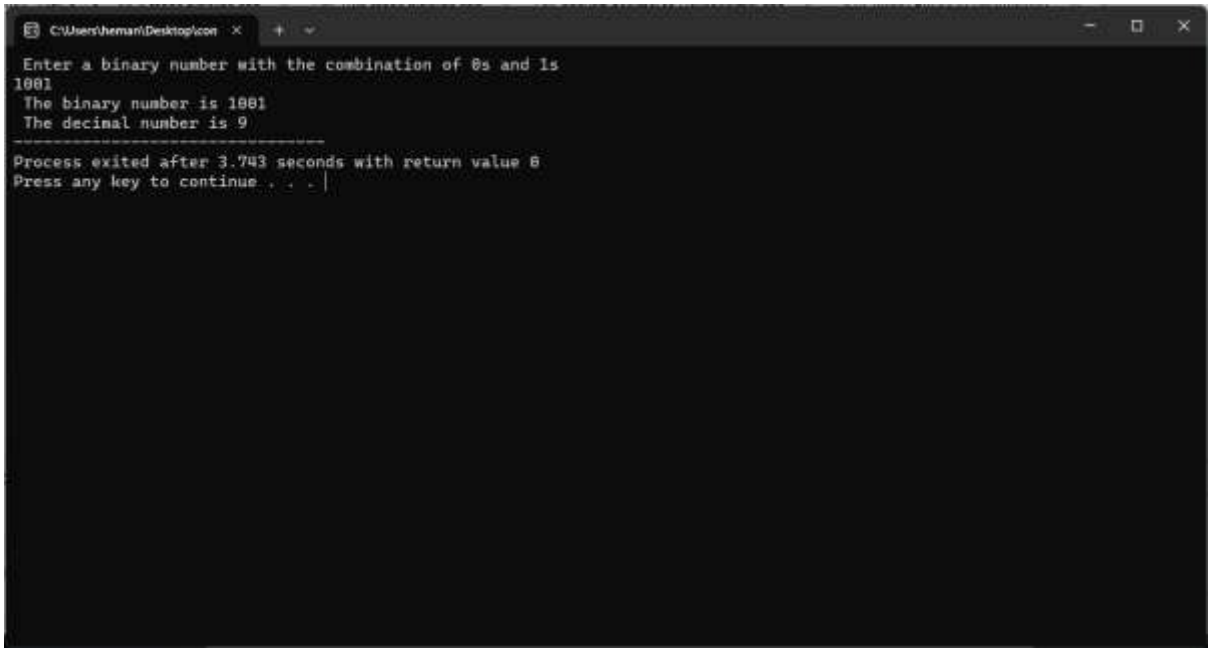
1. **Convert Binary to Decimal**

```
#include <stdio.h>
int main()
{
   // declaration of variables
   int num, binary_num, decimal_num = 0, base = 1, rem;
   printf (" Enter a binary number with the combination of 0s and 1s \n");
   scanf (" %d", &num); // accept the binary number (0s and 1s)

   binary_num = num; // assign the binary number to the binary_num variable


   while ( num > 0)
   {
      rem = num % 10; /* divide the binary number by 10 and store the remainder in rem variable. */
      decimal_num = decimal_num + rem * base;
      num = num / 10; // divide the number with quotient
      base = base * 2;
   }

   printf ( " The binary number is %d \t", binary_num); // print the binary number
   printf (" \n The decimal number is %d \t", decimal_num); // print the decimal
}
```


C:\Users\heman\Desktop\con
Enter a binary number with the combination of 0s and 1s
1001
The binary number is 1001
The decimal number is 9
Process exited after 3.743 seconds with return value 0
Press any key to continue . . .