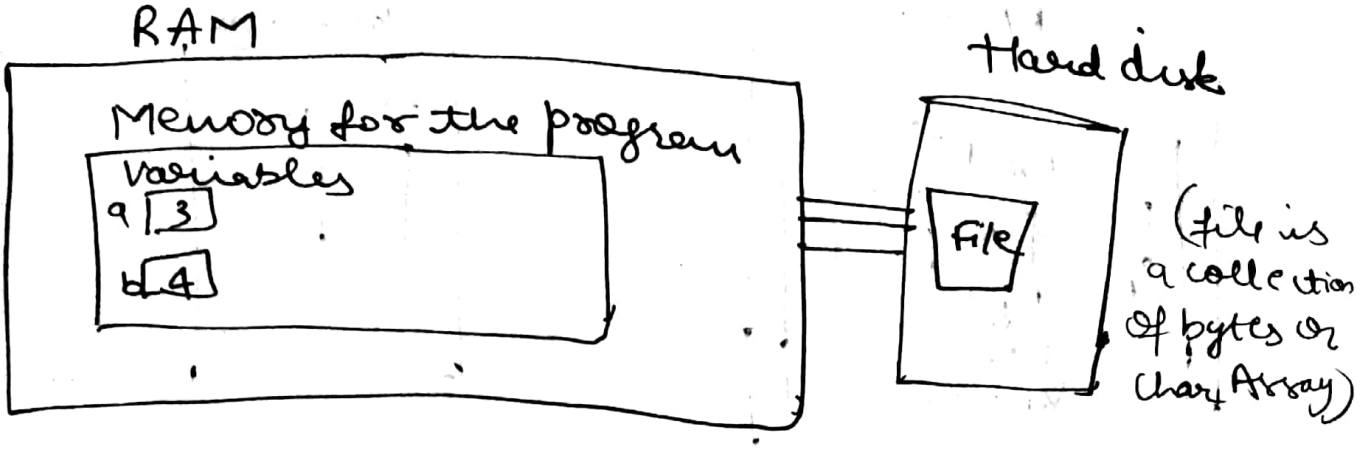
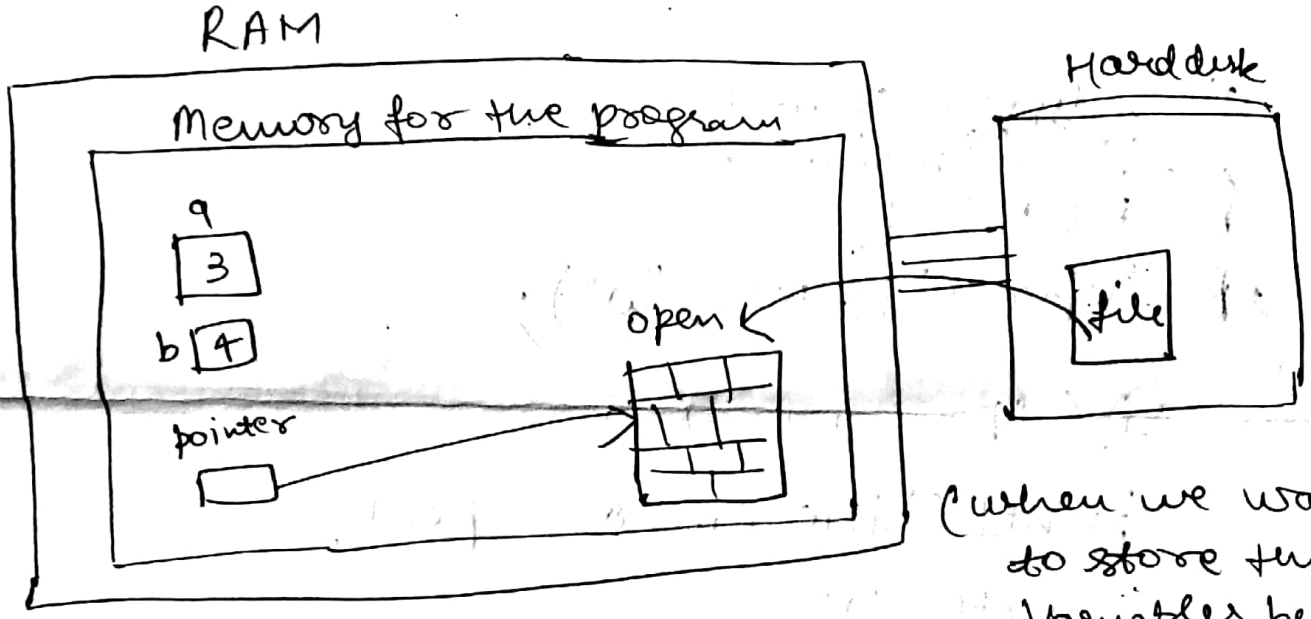
→ File Handling in C





(when we want to store the variables permanently in a file.

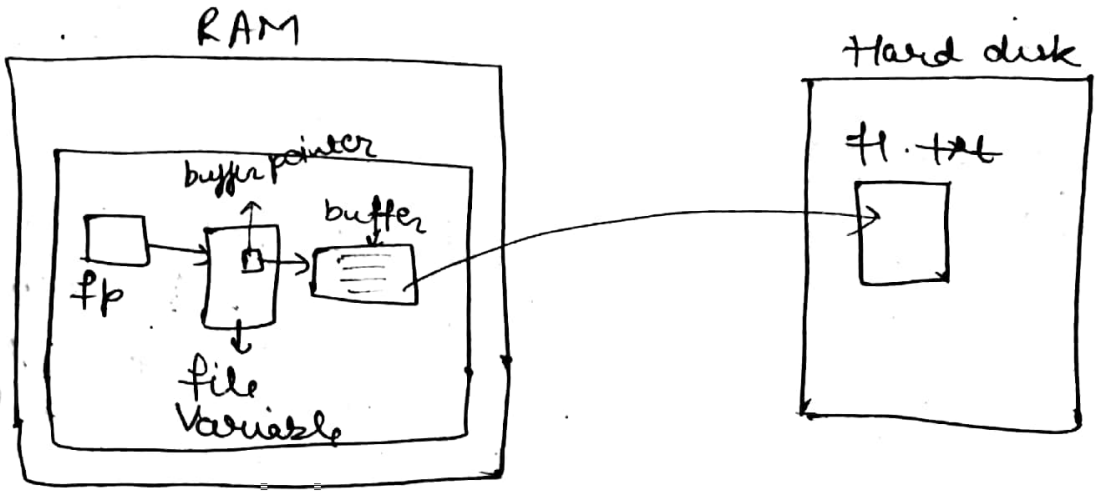
pointer is of FILE data which is in stdio.h head file.

FILE *fp;

→ File Handling – Enables us to create, update, read, write, delete files stored on the local file system through our C programs

→ File operations → close, open, read, write, create, delete

→ WAP to write helloworld in a file.

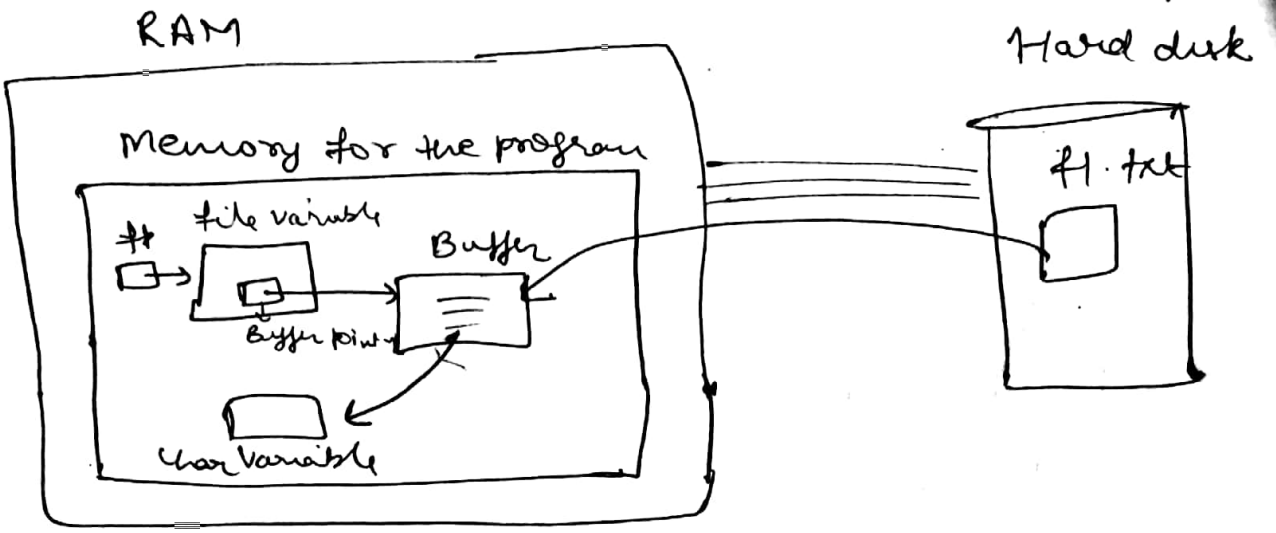



```
#include <stdio.h>
int main()
{
  char s[] = "hello world";
  FILE *fp;
fp = fopen ("f1.txt", "w");
  if (fp == NULL)
  {
   printf ("file cannot open");
    exit(1);
  }
 for (i=0; i<strlen(s); i++)
    {
     fputc (s[i], fp);
    }
     fclose(fp);
     getch();
}
```

WAP to take string from user and write it into a file.

```
#include <stdio.h>
int main()
{ int i;
  FILE *fp;
  char s[100];
fp = fopen("f1.txt", "w");
if (fp == NULL)
{ printf("file cannot open");
    exit(1);
  }
printf("enter a string");
  gets(s);
for(i=0; i<strlen(s); i++)
  { fputc(s[i], fp);
    }getch();
     fclose(fp);
      getch();
}
```

→ Reading data from a file



→ Reading from a file means -

- Extracting data from a file to our program variables
- This will not remove data from the file.

→ WAP to read content from a file and display on the Screen.

```
#include <Stdio.h>
main()
{ char ch;
  FILE *fp;
  fp = fopen("f1.txt", "r");
  if (fp == NULL)
  { printf("file not found");
    exit(1);
  }
```

```
ch = fgetc (fp);
while (!feof(fp))
{  printf ("%c", ch);
   ch = fgetc (fp);
}
fclose(fp);
}
```

→ File functions

(1) fputc()— write character into a file.
(2) fgetc()— read character from a file.
(3) fputs()— write string into a file.
(4) fgets() – read string from a file.
(5) fwrite()— write in a binary mode in a file.
(6) fread() – read in a binary mode in a file.
(7) fprintf() – write formatted output to the specified stream.

eg:-

```
fprintf(fp, "Sum of %d and %d is %d", a, b, c);
```

(8) fscanf() – is used to read formatted content from file.

→ WAP to print the sum of two no.'s in a file.

```
#include <stdio.h>
main()
{ FILE *fp;
  int a, b;
 fp = fopen("f1.txt", "w");
 printf("enter two numbers");
  Scanf("%d" "%d", &a, &b);
 fprintf(fp, "Sum of %d and %d is %d", a, b, a+b);
  fclose(fp);
}
```

WAP to read three numbers from file and print it on the screen

```
#include <stdio.h>
main()
{ FILE *fp;
  int a, b, c;
  fp = fopen("f1.txt", "r");
  fscanf(fp, "%d %d %d", &a, &b, &c);
  printf("numbers are %d %d %d", a, b, c);
  fclose(fp);
}
```

→ WAP to read numbers from file and print average of them.

```
#include <stdio.h>
main()
{ FILE *fp;
  int a, b, c; sum = 0;
  float avg;
  fp = fopen("f1.txt", "r");
fscanf(fp, "%d %d %d", &a, &b, &c);
  sum = a+b+c;
printf("Sum is %d", sum);
  avg = sum / 3;
printf("average is %f", avg);
```

```
fclose(fp);
}
```