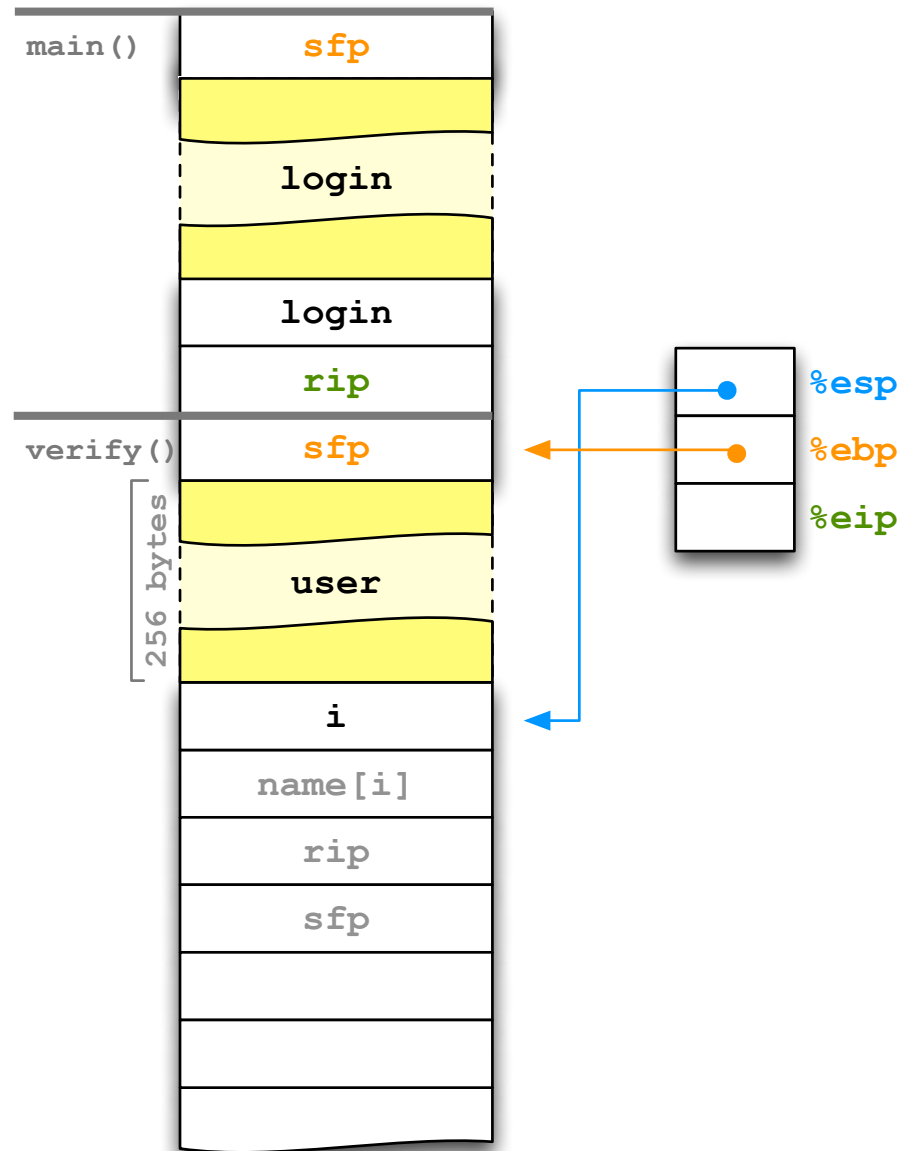```c
#include <ctype.h> // tolower
#include <string.h> // strcmp
#include <stdio.h> // fgets, fputs

void reveal_secret()
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```
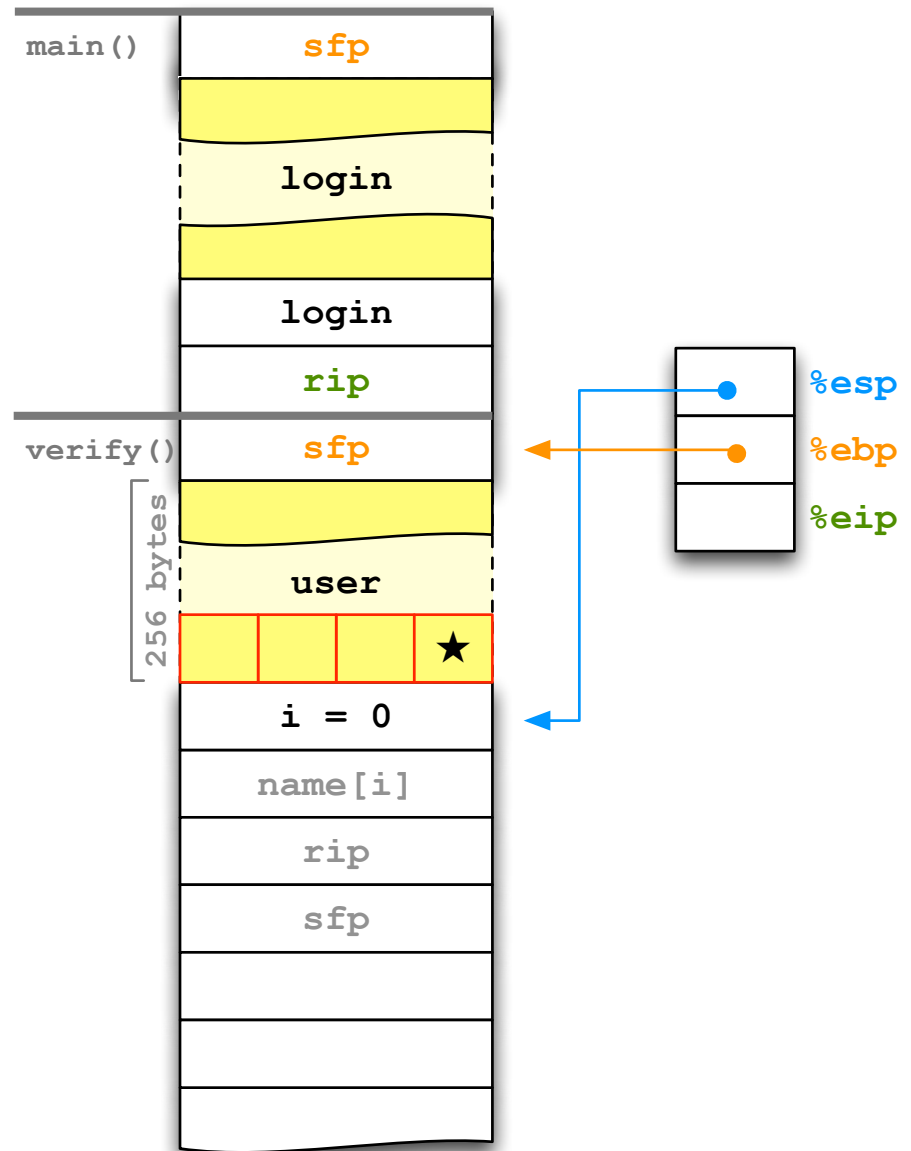
```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```
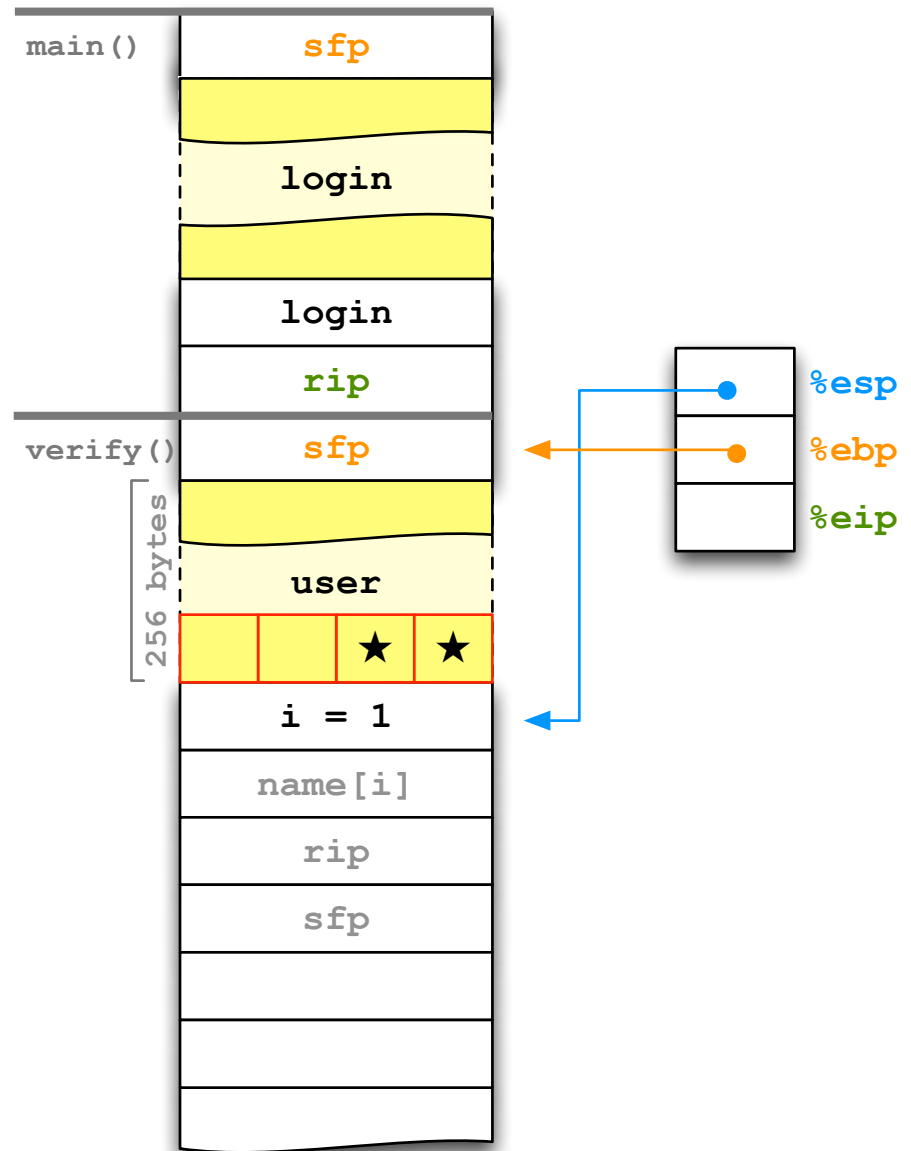
```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```

main()

sfp

login

login

rip

verify() **sfp**

256 bytes

user

★ ★

i = 1

name[i]

rip

sfp

%esp

%ebp
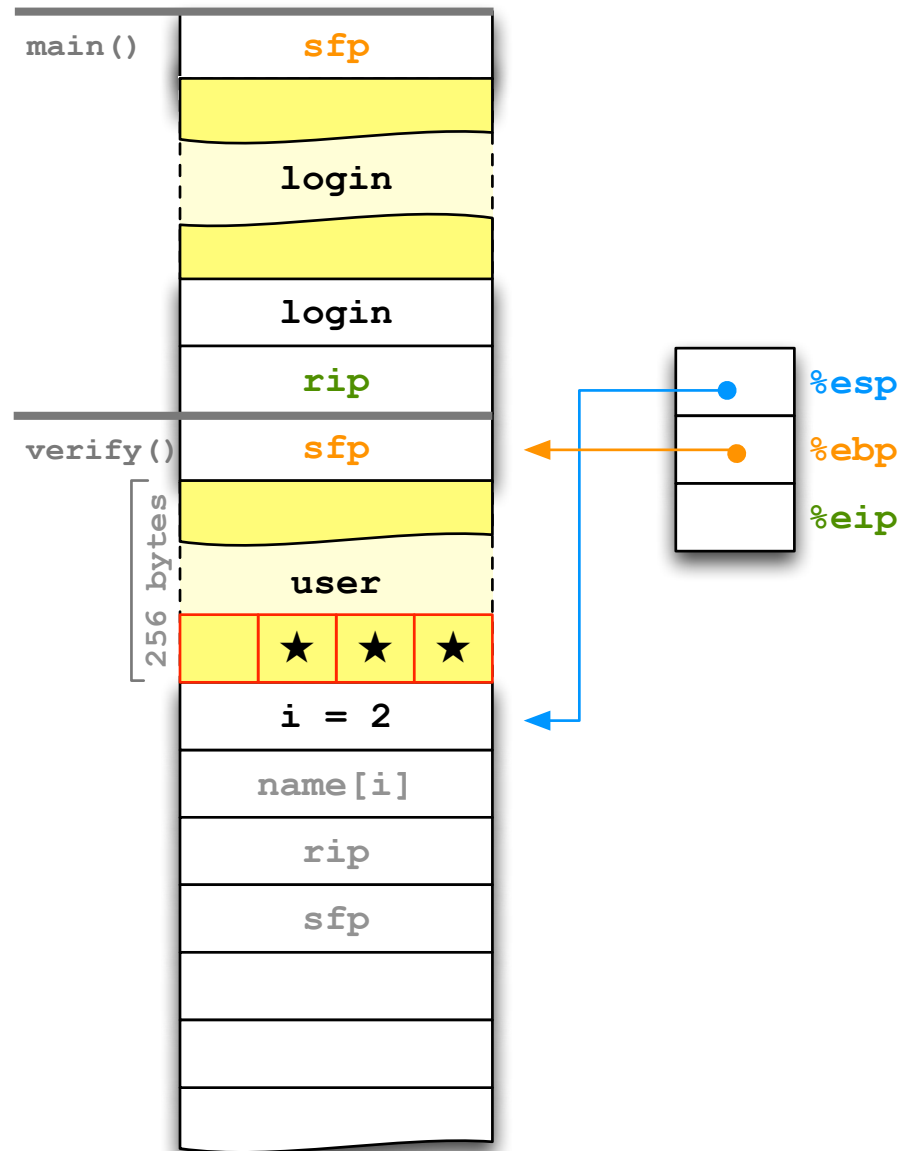
%eip

```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```

main()

sfp

login

login

rip

verify()

sfp

256 bytes

user

★ ★ ★

i = 2

name[i]

rip

sfp

%esp

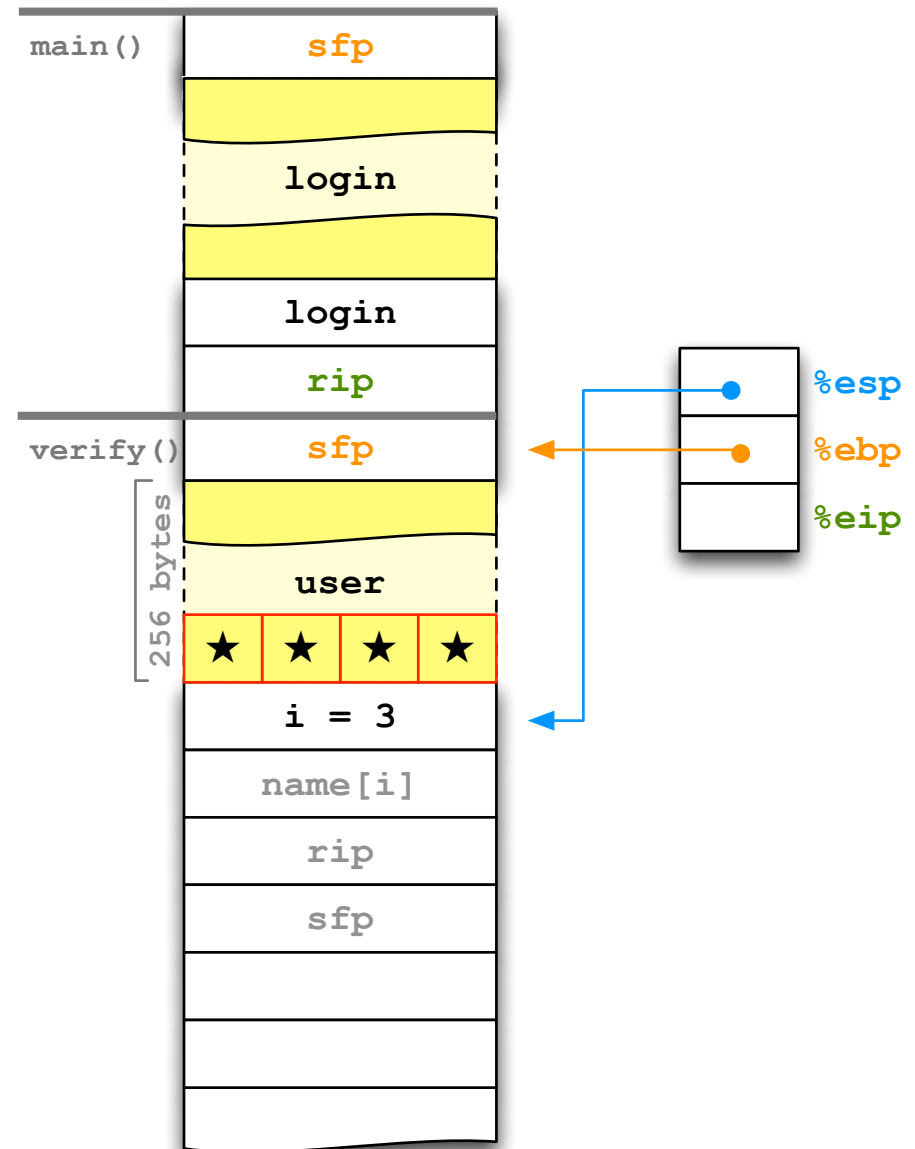%ebp

%eip

```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```
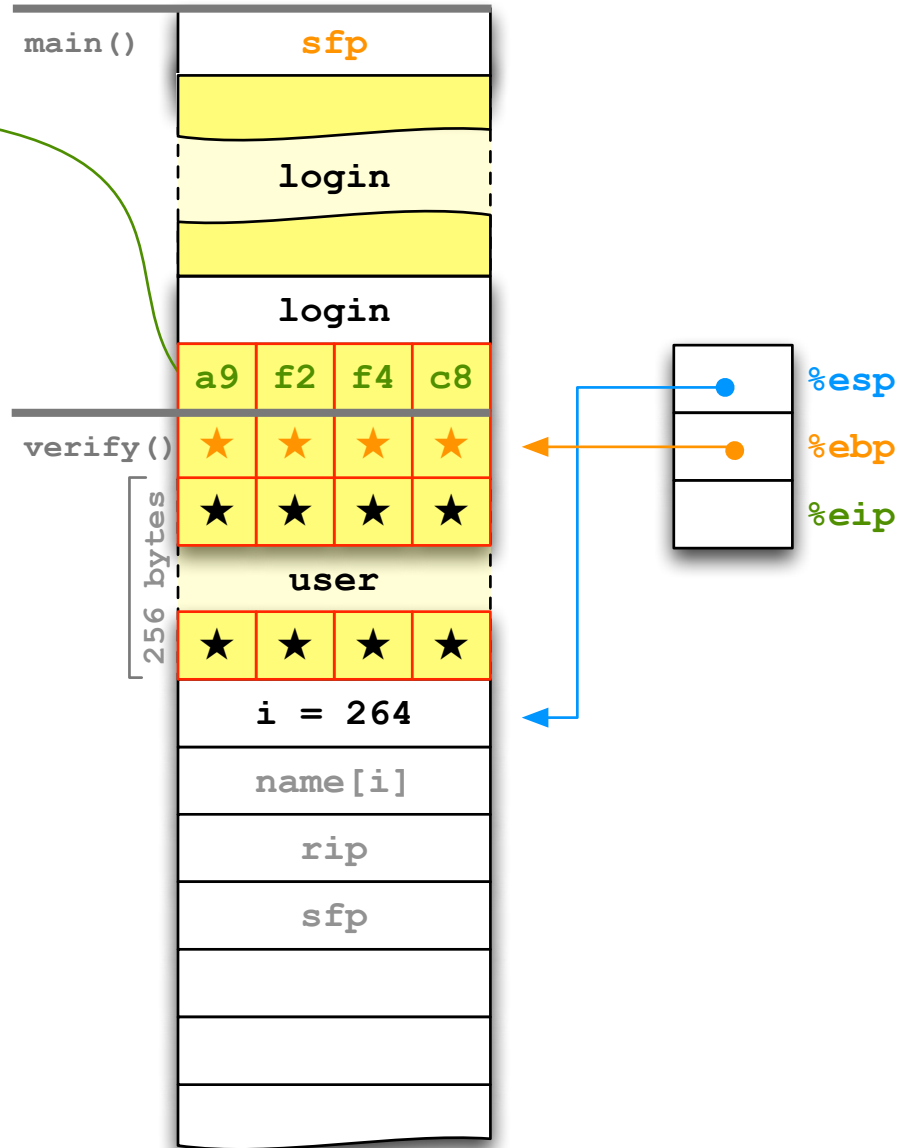
main()

sfp

login

login

rip

verify()

sfp

256 bytes

user

★ ★ ★ ★

i = 3

name[i]

rip

sfp

%esp

%ebp

%eip

```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()                    0xc8f4f2a9
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```

main()

sfp

login

login

| a9 | f2 | f4 | c8 |

verify()

| ★ | ★ | ★ | ★ |
| ★ | ★ | ★ | ★ |

user

256 bytes

| ★ | ★ | ★ | ★ |

i = 264

name[i]

rip

sfp

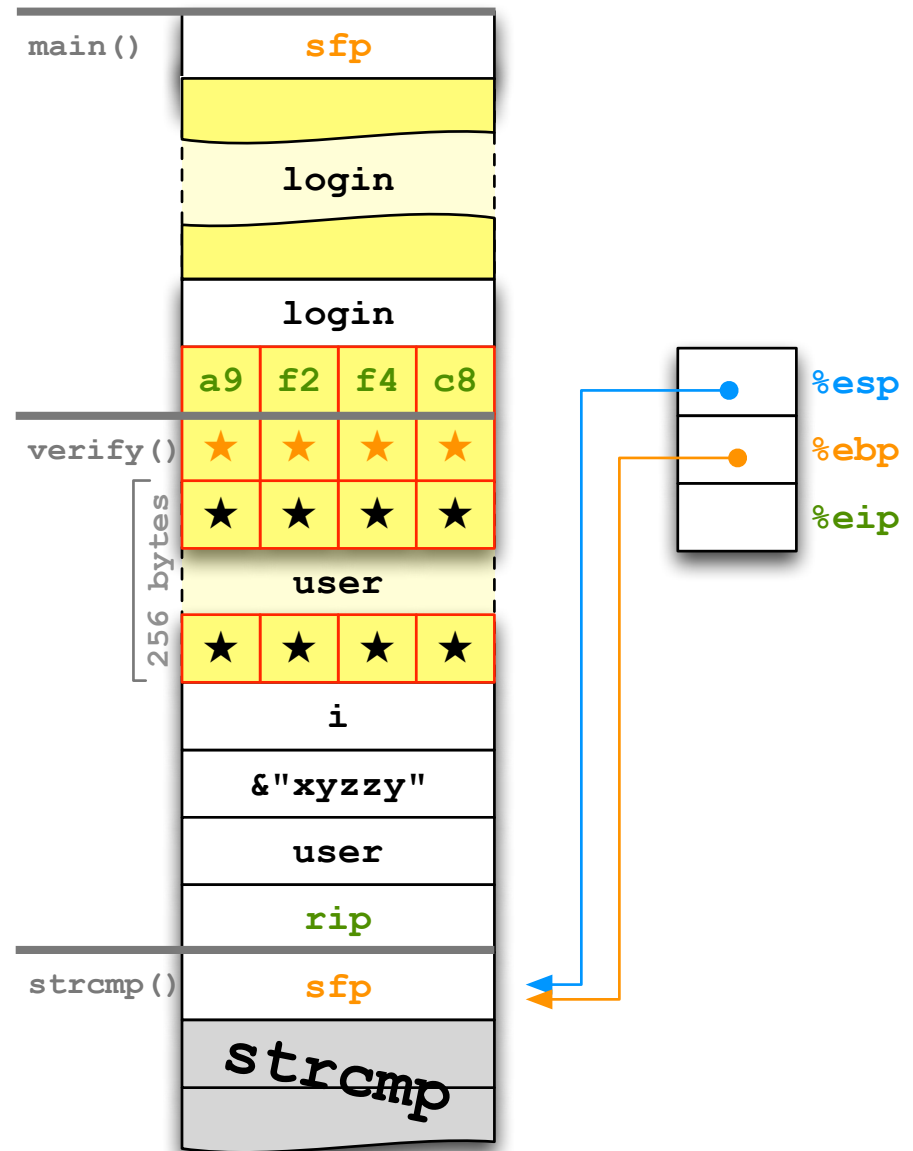%esp

%ebp

%eip

```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
    fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
    char user[256];
    int i;
    for (i = 0; name[i] != '\0'; ++i)
        user[i] = tolower(name[i]);
    user[i] = '\0';
    return strcmp(user, "xyzzy") == 0;
}

int main()
{
    char login[512];
    fgets(login, 512, stdin);
    if (! verify(login))
        return 1;
    reveal_secret();
    return 0;
}
```
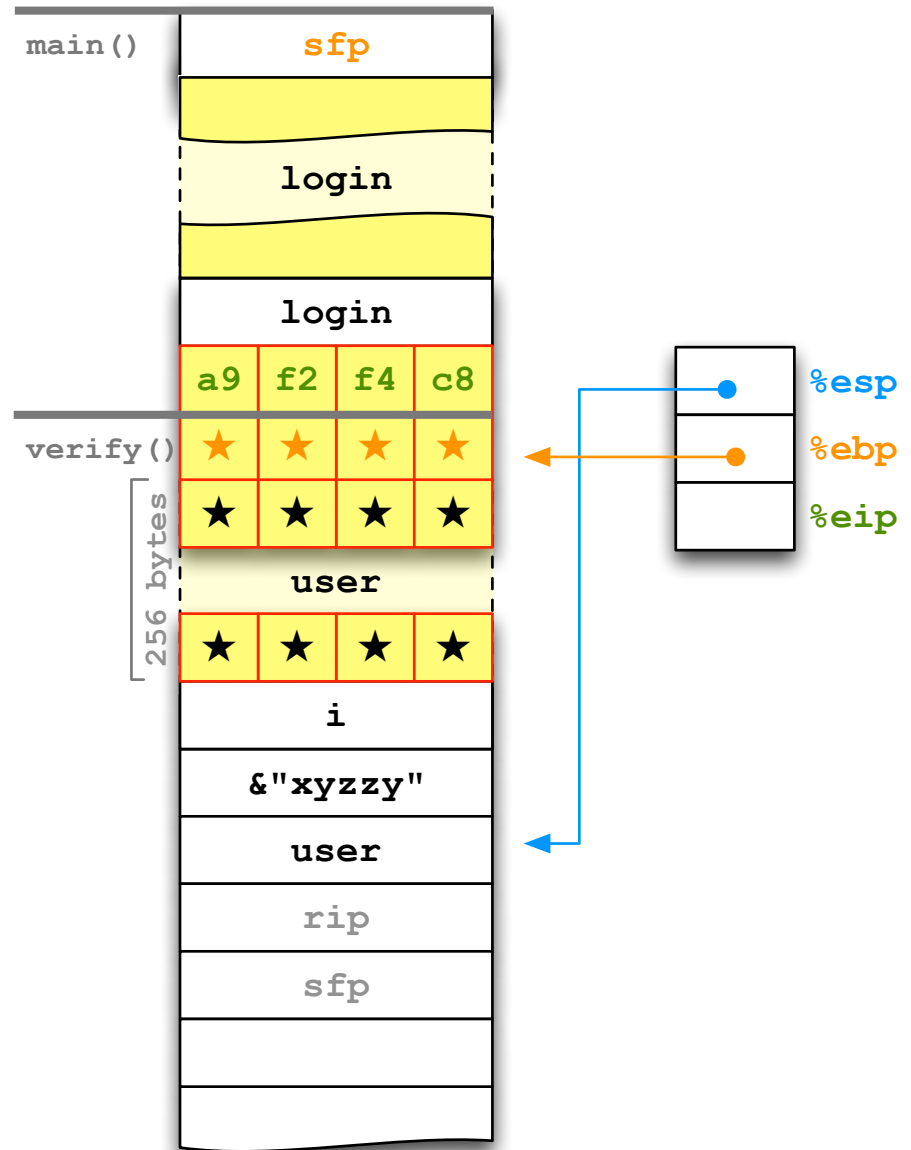
```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```
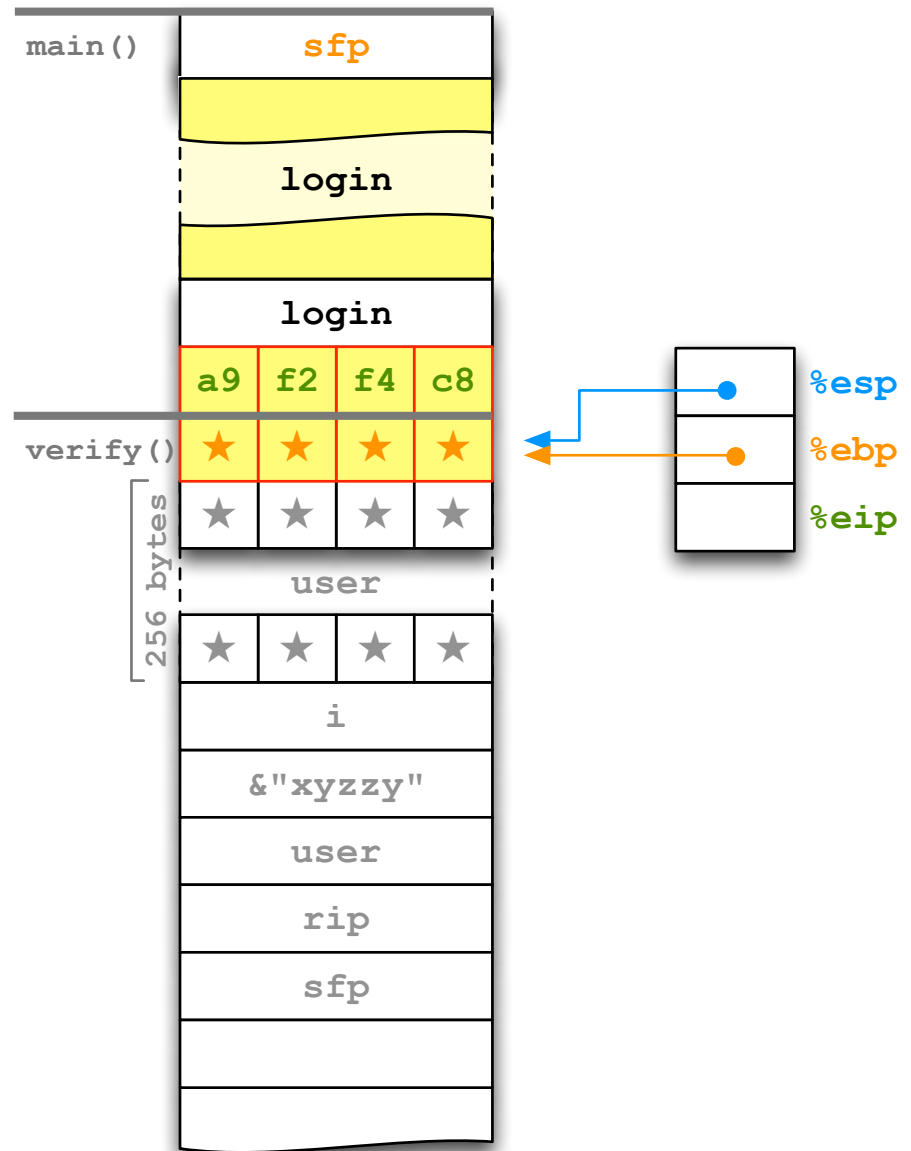
```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```

main()

sfp

login

login

| a9 | f2 | f4 | c8 |

| ★ | ★ | ★ | ★ |

verify()

| ★ | ★ | ★ | ★ |

256 bytes

user

| ★ | ★ | ★ | ★ |

i

&"xyzzy"

user

rip

sfp

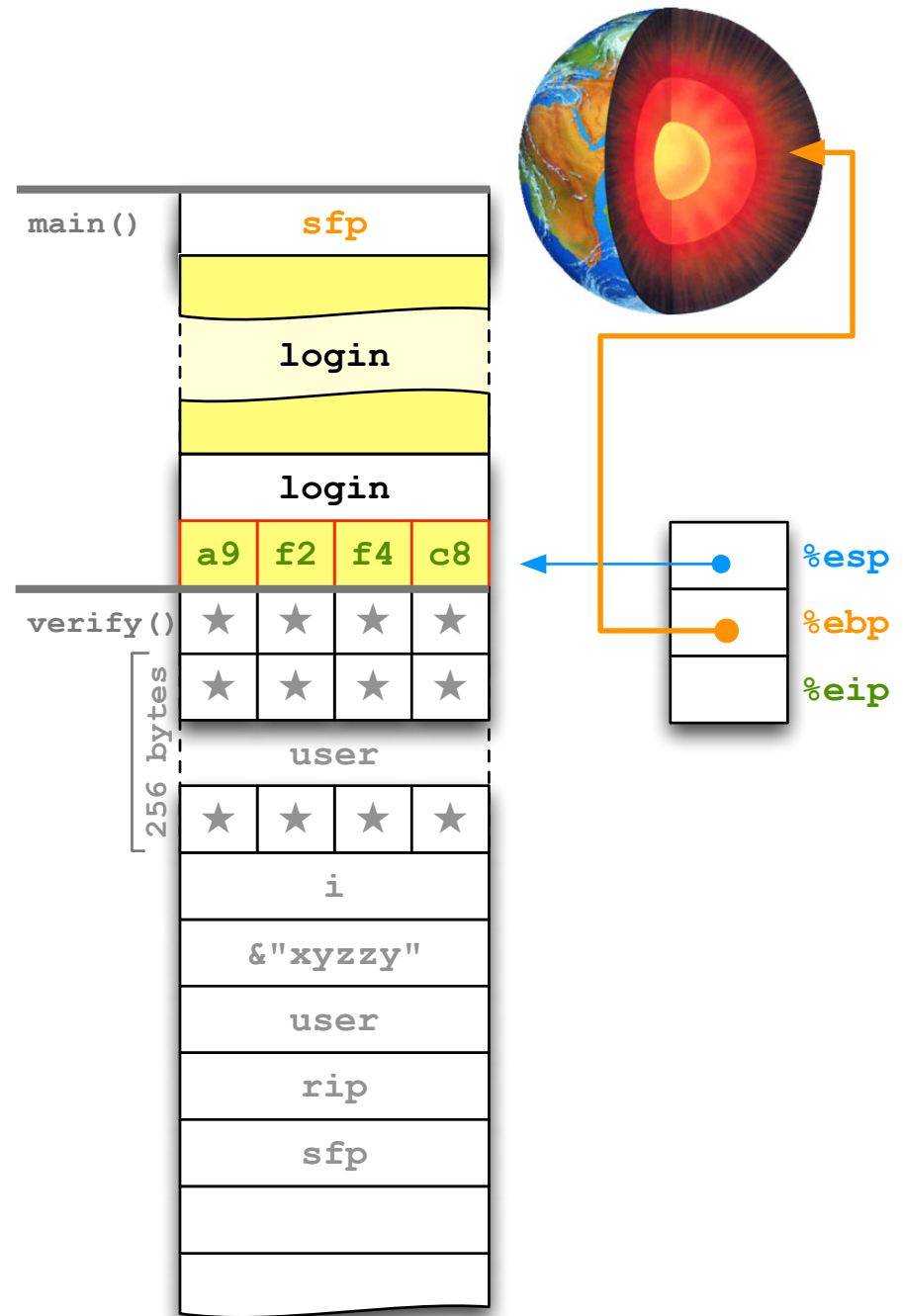%esp
%ebp
%eip

```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```
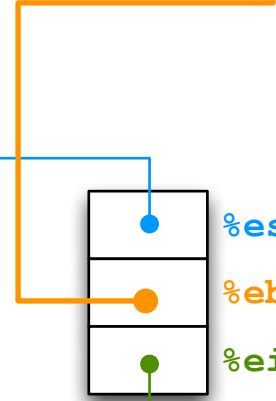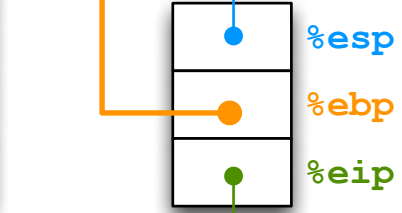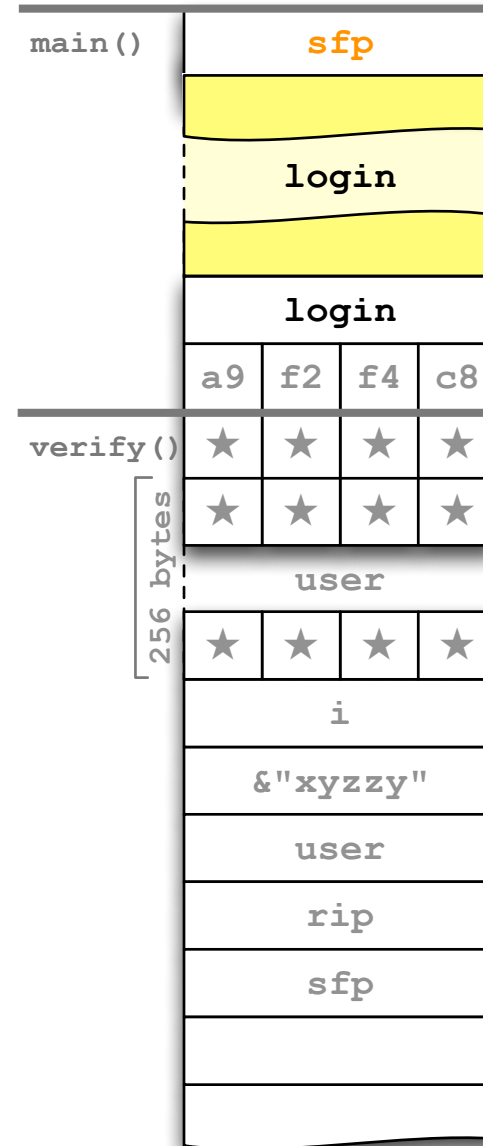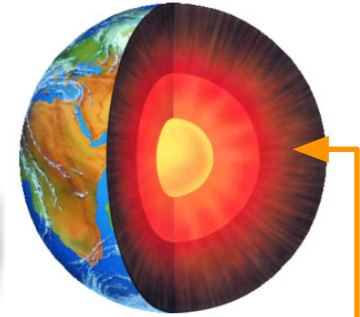
main()

sfp

login

login

| a9 | f2 | f4 | c8 |

%esp

%ebp

%eip

verify()

| ★ | ★ | ★ | ★ |
| ★ | ★ | ★ | ★ |

256 bytes

user

| ★ | ★ | ★ | ★ |

i

&"xyzzy"

user

rip

sfp

```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```


main()

sfp

login

login

a9	f2	f4	c8

verify()

★	★	★	★
★	★	★	★

256 bytes

user

★	★	★	★

i

&"xyzzy"

user

rip

sfp

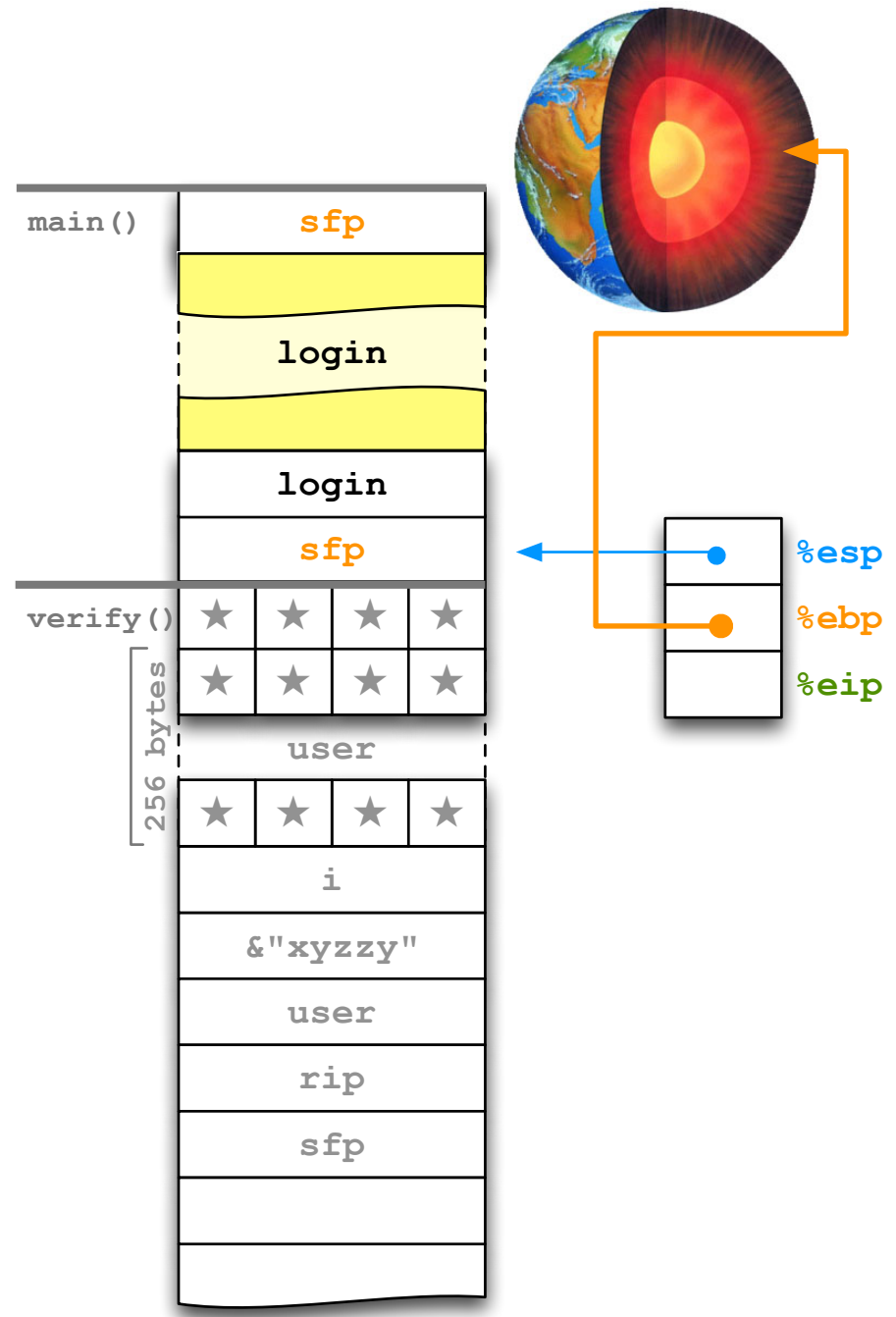%esp

%ebp

%eip

```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
  fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '\0'; ++i)
    user[i] = tolower(name[i]);
  user[i] = '\0';
  return strcmp(user, "xyzzy") == 0;
}

int main()
{
  char login[512];
  fgets(login, 512, stdin);
  if (! verify(login))
    return 1;
  reveal_secret();
  return 0;
}
```
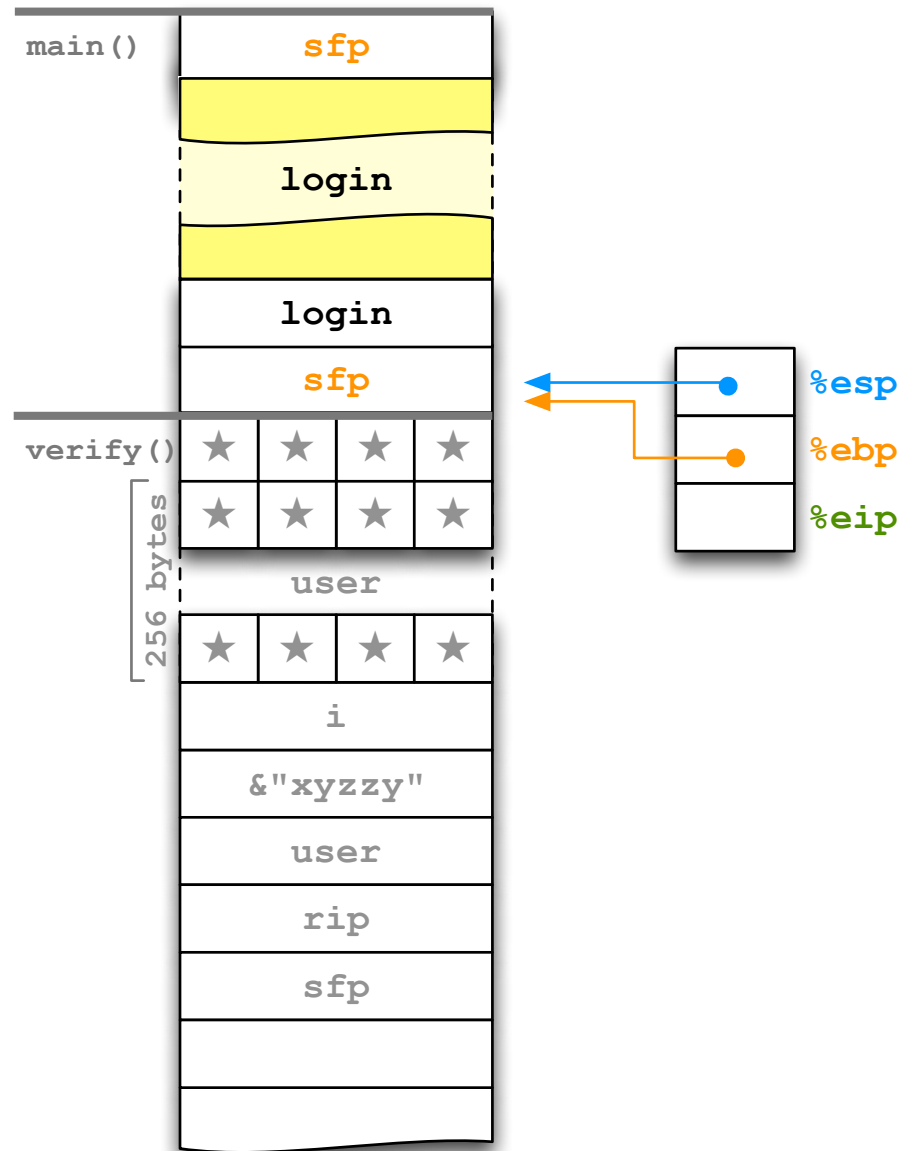
```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
    fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
    char user[256];
    int i;
    for (i = 0; name[i] != '\0'; ++i)
        user[i] = tolower(name[i]);
    user[i] = '\0';
    return strcmp(user, "xyzzy") == 0;
}

int main()
{
    char login[512];
    fgets(login, 512, stdin);
    if (! verify(login))
        return 1;
    reveal_secret();
    return 0;
}
```
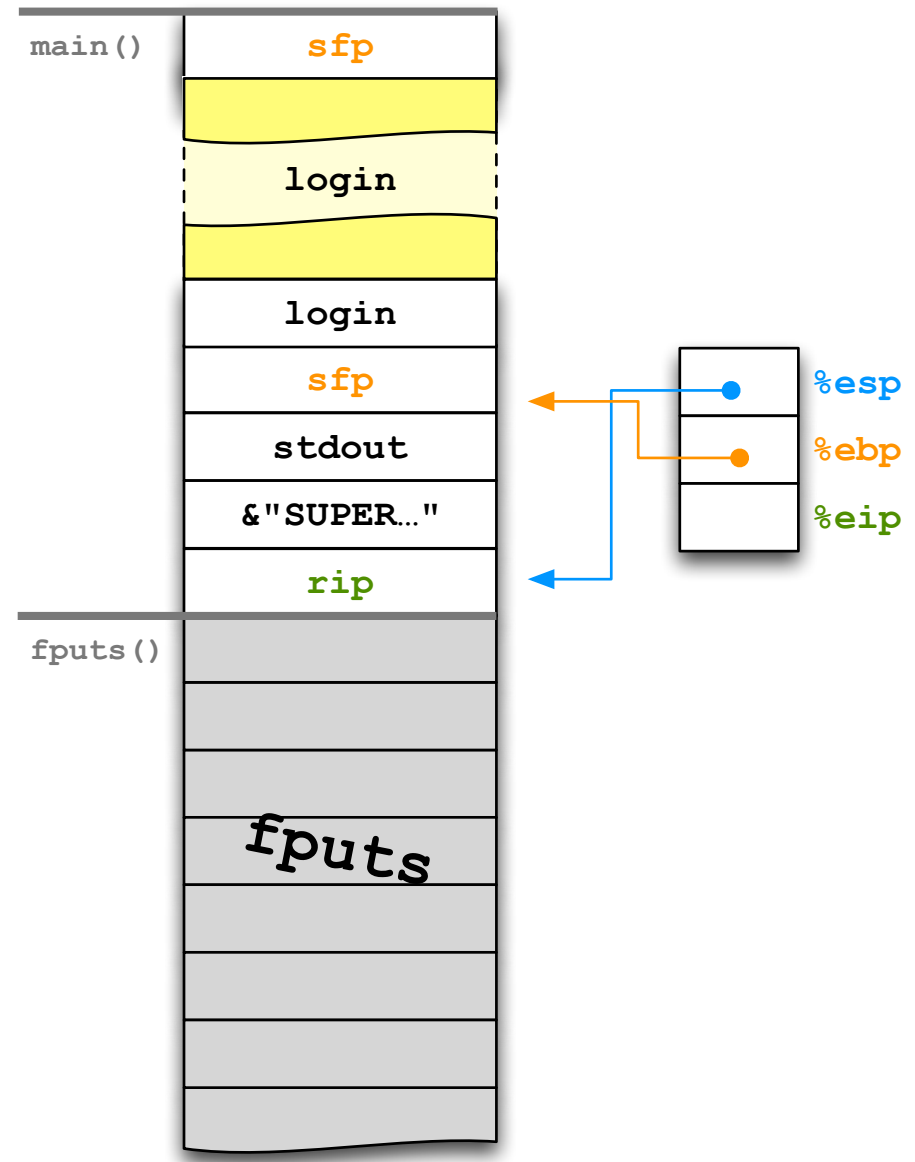
```c
#include <ctype.h>  // tolower
#include <string.h> // strcmp
#include <stdio.h>  // fgets, fputs

void reveal_secret()
{
    fputs("SUPER SECRET = 42\n", stdout);
}

int verify(const char* name)
{
    char user[256];
    int i;
    for (i = 0; name[i] != '\0'; ++i)
        user[i] = tolower(name[i]);
    user[i] = '\0';
    return strcmp(user, "xyzzy") == 0;
}

int main()
{
    char login[512];
    fgets(login, 512, stdin);
    if (! verify(login))
        return 1;
    reveal_secret();
    return 0;
}
```
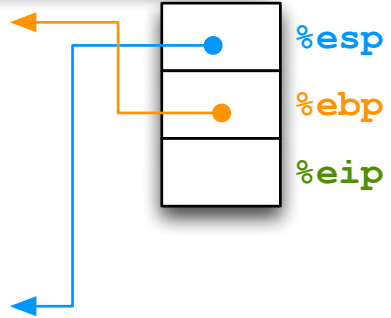
SUPER SECRET = 42

```c
int verify(const char* name)
{
  char user[256];
  int i;
  for (i = 0; name[i] != '
    user[i] = tolower(name
  user[i] = '\0';
  return strcmp(user, "x
}

int main()
{
  char login[512];
  fgets(login, 512,
  if (! verify(logi
    return 1;
  reveal_secret();
  return 0;
}
```

%esp
%ebp
%eip