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LSI1APP

## TP4 C++ Les pointeurs

```
#include <iostream>
```

```
int main() {
```

```
    // Exo1
```

```
    char valex1 = 'A';
    printf("Informations sur ma variable : \n");
    printf("Type : %s\n", typeid(valex1).name());
    printf("Taille : %zu octets\n", sizeof(valex1));
    printf("Contenu : %c\n", valex1);
    printf("adresse : %p\n", (void*)&valex1);
```

```
    // Exo 2
```

```
    int valex2;
    int* ptrex2 = &valex2;
    printf("donnez un nombre entier : ");
    scanf("%d",ptrex2);
    printf("La valeur %d est stockee a l'adresse %p", *ptrex2, (void*)ptrex2);
```

```
    // Exo 3
```

```
    char prenom = 'A', nom = 'Z';
    char* p_prenom = &prenom;
    char* p_nom = &nom;
    printf("vos initiales %c. %c\n", prenom, nom);
    //inversion
    char temp = *p_prenom;
    *p_prenom = *p_nom;
    *p_nom = temp;
    printf("vos initiales %c. %c\n", prenom, nom);
```

```
    // Exo 4
```

```
    int age = 23;
    int *pointeur_age = &age;

    printf("Quel est votre age ?");
    scanf("%d", pointeur_age);
```

```
printf("Vous avez %d ans\n", age);
```

```
// Exo 5
```

```
char CH[100];
```

```
char* P = CH;
```

```
printf("Entrez une chaine de caracteres : \n");
```

```
scanf("%s", CH);
```

```
while (*P != '\0') {
```

```
    P++;
```

```
}
```

```
printf("La longueur de la chaine est : %ld\n", P - CH);
```

```
// Exo 6
```

```
int tab[5];
```

```
srand(time(NULL));
```

```
int *ptrex6 = tab;
```

```
int sum = 0;
```

```
for (int i = 0; i < 5; i++) {
```

```
    tab[i] = rand() % 100;
```

```
}
```

```
for (int i = 0; i < 5; i++) {
```

```
    sum += *(ptrex6 + i);
```

```
}
```

```
printf("La somme du tableau est de : %d\n", sum);
```

```
for (int i = 0; i < 5; i++) {
```

```
    printf("%d ", tab[i]);
```

```
}
```

```
return 0;
```

```
}
```