**Competitive Programming Notes**

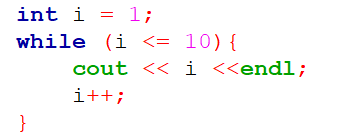
**Cin.ignore() function:**

Use kora hoy jokhon input er por o unnecessary buffer/space thake and eta use korle cursor niche next line e chole jay

Text

Description automatically generated

**While loop**



**While loop for test cases:**

Graphical user interface, text, application

Description automatically generatedText

Description automatically generated

**Infinite Loop:**

Logo

Description automatically generated with medium confidence

**For Overflow and Data types:**

-10^9 < int < 10^9

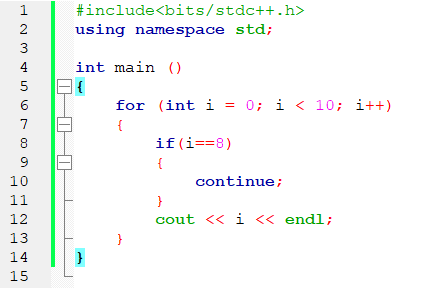
-10^12 < long int < 10^12

-10^18 < long long int < 10^18

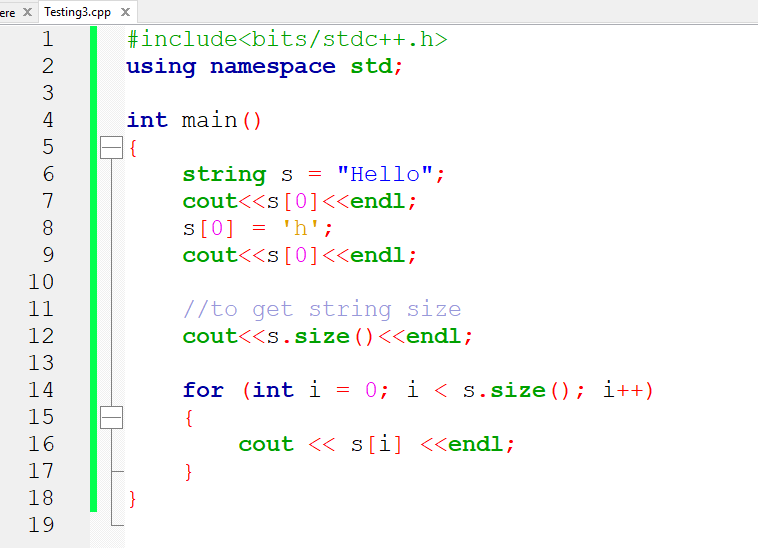
Double, float e number er accuracy / precision valo hoy na tai use kori na.

**Continue statement**

Break jemon ber kore ney, continue opposite vabe ferot jay



Getting each element of a STRING

Text

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Eksathe 2 ta string input and eksathe output:

Text

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Jodi amra ei spacewala 2 ta string eksathe ekta string e output dekhate chai:

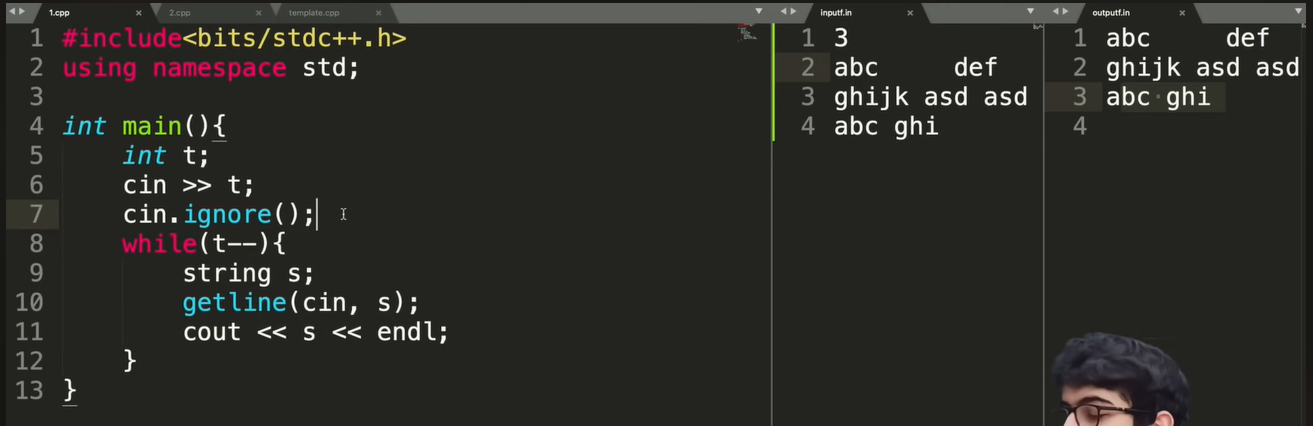
Text

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But jodi majhe onk space thake, shekhetre getline() function use korbo jeta whole line read korbe:

Text

Description automatically generated



**Reverse String save and Show korar jonno:**

Text

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But evabe time complexity onk bere jabe. Echara amra string e char add korchi jeta thik na.

Etar solution hocche .push\_back() use kora jay jeta ekta ekta character niye add korbe and same output dibe

Text

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**String Palindrome kina checking:**

Palindrome bolte shuru theke porleo jemon ashbe shesh theke porleo temon e ashbe

Ex: aabaa, acbdbca

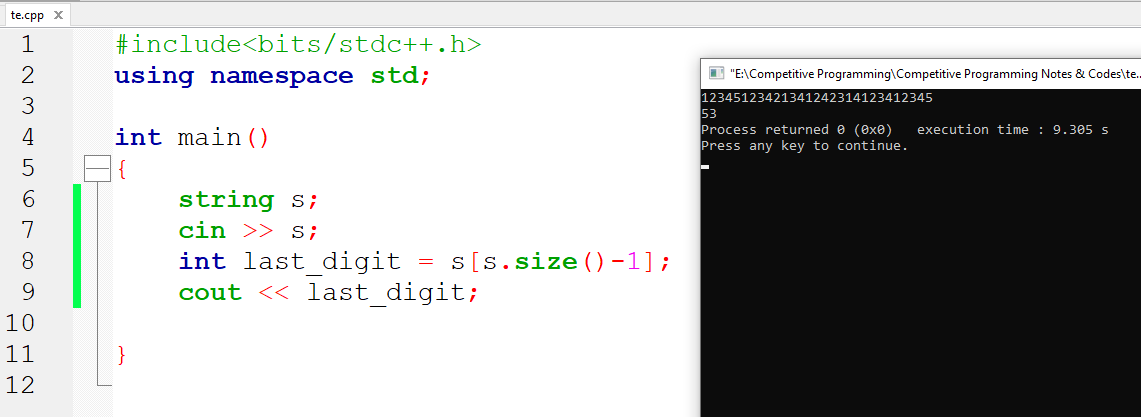
String reverse kore just string ta reverse string er shoman kina ota check korlei hobe

Graphical user interface, text

Description automatically generated with medium confidence

Dealing With Large Number using String:

Jodi emon hoy je amk 10^18 er o beshi onk bishal ekta number input dilo.. tokhon sheta amra string e input nite pari ….. kintu shekhetre amader prottekta digit number hishebe extract kore nite hobe.



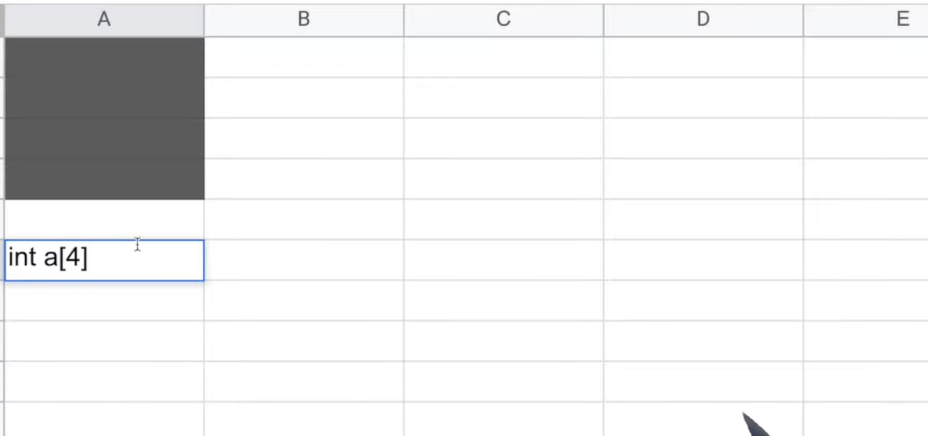
Ekhane last\_digit e 5 er ASCII value save hoise. Eta int value hishebe pete ‘0’ diye minus korte hobe.

Graphical user interface, text, application

Description automatically generated

**2D and nD Array**

Int a[4]



Int a[4][3]

Application, table

Description automatically generated

Application, table

Description automatically generated

2D Array:

Text

Description automatically generated

**Add characters in any String : Two Ways : BETTER way described:**

Way 1 is better as time complexity is less

