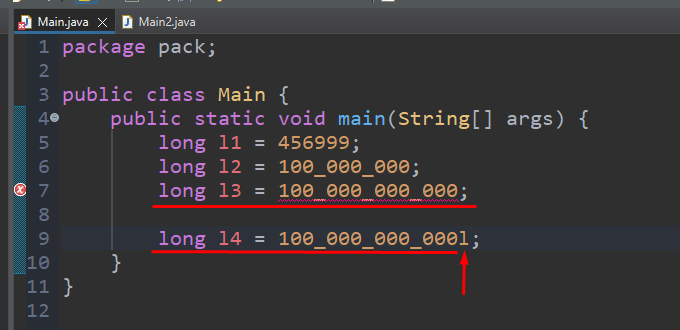
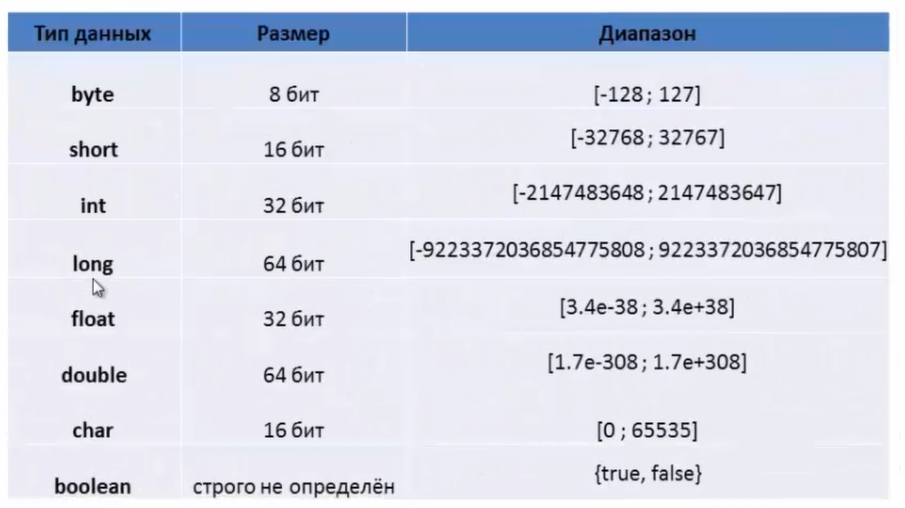
**- Long** type uchun default data type bu **int** data type bo’lgani uchun, l1=456999 va l2=100mln deb yozsak, xatolik bermadi. Chunki bu sonlar int type ni oralig’iga**(-2,147,483,648 and 2,147,483,647)** kiradi va bu l1=456999 va l2=100mln sonlarni long type int type deb qabul qiladi. Shuning uchun xatolik beryadi. Lekin l3=100\_000\_000\_000 (100mlrd) deb yozsak xatolik beradi, sababi 100mlrd soni int type ning **(-2,147,483,648 and 2,147,483,647)** bu oralig’iga kirmaydi. Bundan tashqari 100mlrd sonini int type deb qabul qiladi, lekin 100mlrd soni int type ni oralig’iga kirmaydi, shuning uchun xatolik beradi kodning 7-qatorida. Lekin biz 100mlrd ni olib, oxiriga L yoki l harfini qo’shsak xatolik yo’qoladi. Sababi bu endi ortiq int type emas, balki long type dir deganidir. 9-qatorda shu jarayon ko’rsatilgan:

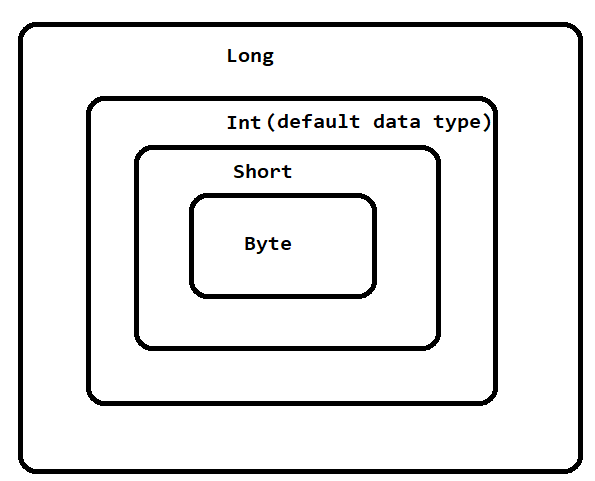


E’tibor bergan bo’lsangiz, int type sonini oralig’iga tushadigan son bo’lsa, masallan, yuqoridagi l1 va l2 lar bo’lsa, u holda biz bu sonlarni oxiriga L yoki l ni qo’shishimiz shart emas.

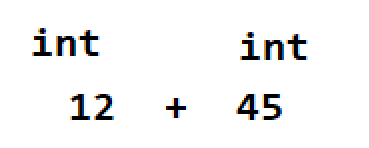
-Hamma joyda biz faqat long typeni ishlatishimiz mumkinmi? Ha, lekin biz e’lon qiladigan o’zgaruvchimiz maximal 200 sonini qabul qiladigan bo’lsa, bizga short type ham yetarli. Bu yerda long type 2 byte joy oladi, long esa 8 byte. O’z-o’zidan ortiqcha 6 byte joy olyapti. Shunday holatlar uchun byte, short, int va long type chiqarilgan:



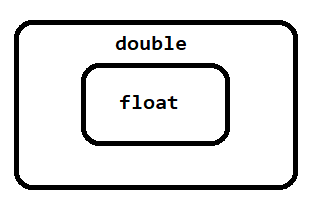
- Demak, byte, short, int va long uchun default data type bu unt data typedir:



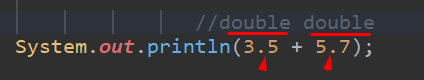
Agar 2 ta sonni qo’shsak ham, ularni data type int da bo’ladi:



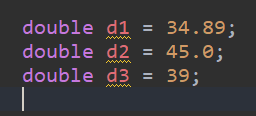
Float va double uchun default data type bu double hisoblanadi:



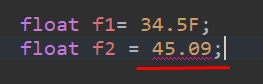
Agar deylik 2ta irratsional son ustida arifmetik amal bajarsak ularni type default holatda double bo’ladi:



Double va float uchun default type double bo’lgani uchun, ularni oxiriga D yoki d ni qo’shish shart emas, lekin qo’shsak ham xato emas:



Lekin float data type uchun bunday deya olmaymiz. Float data type uchun default data type bu double bo’lgani uchun, float type sonni oxiriga F yoki f ni qo’shish kerak, aks holda xatolik beradi:

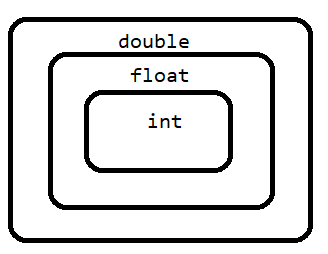


Yuqorida f2 o’zgaruvchida xatolik berdi, sababi 45.09 sonini default data type bu double dir. Double type float type amas va unga mos ham tushmaydi. Shuning uhcun xatolik beradi, yechimi oxiriga F ni qo’shsh kerak.

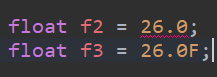
Yana muhim joyi shundaki, agar biz float type ga int type li son yozsak, xatolik bermaydi. Sababi float typeni ihcida default type sifatida iint type yotadi shuning uhcun xatolik bermaydi:



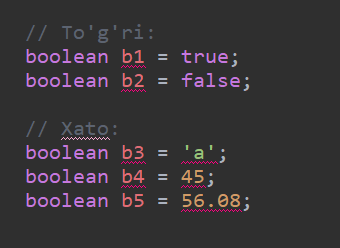
Pastdagi chizmadan ko’rish mumkinki, int type float ni ichida yotibdi:



Lekin biz 26.0 yozsak u holda F ni oxiriga yozmasak xatolik beradi f2 o’zgaruvchida. Chunki butun qism paydo bo’ldi va type avtomatik double bo’ladi. Shuning uhcun F ni yozish kerak. f3 o’zgaruvchida xatolik yo’qoldi:

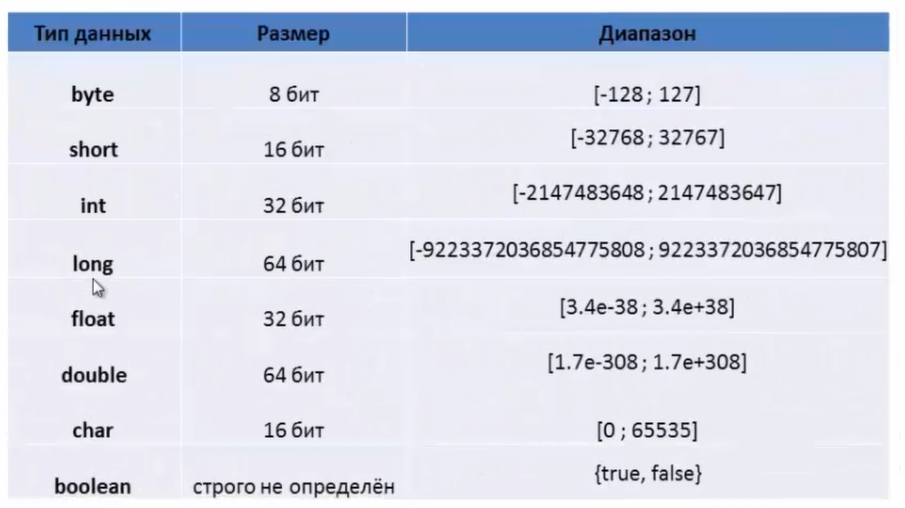


Boolean type ga faqat true yoki false ni o’zlashtirishimiz mumkin, boshqa data typeni o’zlashtirsak xatolik beradi:

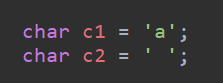


Boolean typeni o’lchami bu **1 bit = 0.125 byte** deganidir.

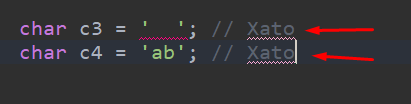
Har bir sonli data typelarni o’zini oraliq chegarasi bor, undan ortib ketsa xatolik beradi. Shuning uchun shu joylariga e’tiborli bo’lish kerak:



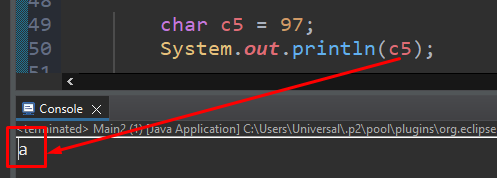
Char type doim 1 ta simvol olishi kerak:



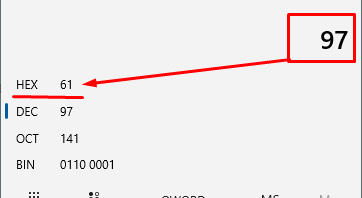
Lekin biz 2ta space yoki 2 va undan ortiq simvol yozsak, xatolik beradi:



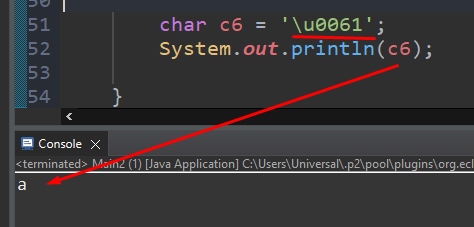
Lekin biz char type integer son yozishimiz mumkin. Bunda integerimiz Unicode da joylashgan simvolni qaytaradi.



Yoki boshqacha ham yozish mumkin. Bunda 97 sonimiz o’nlik sanoq sistemasida turibdi, buni biz 10 lik sanoq sistemasiga o’tkazamiz. Shunda 61 hosil bo’ldi:



Endi shu sonni bunday yozamiz. 61 ni oldiga 2 ta 0 qo’shdik, chunki u simvolidan keyin doim 4 ta simvol bo’lishi kerak. Yetmay qolgan qismini 0 bilan to’ldiramiz:



Underscore ni to’g’ri ishlatish kerak, aks holda error beradi:

