```
struct AlphaS // size of an AlphaS var is 2 + 8 = 10 bytes
                        char a, b; // contributes 2 bytes
                        double f; // contributes 8 bytes
                };
union BetaU // size of a BetaU var is size of largest field var (alphaVar) = 10
                        int i;
                        Alpha alphaVar;
                };
BetaU betUArr[25];
```

Address of **betUArr[1].alphaVar.f** is

= Address of **betUArr[1]** + Offsets by **a & b** in **alphaVar** struct

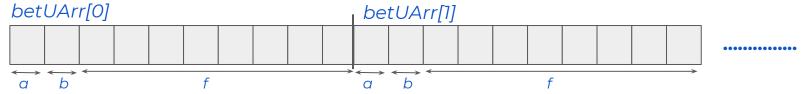
= Address of betUArr[1] + size of alphaVar struct + Offsets by a & b in alphavar struct

See illustrations next slides..

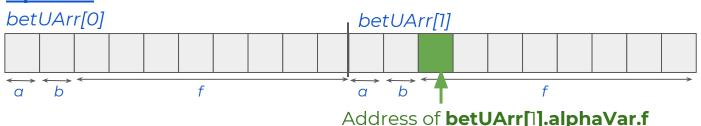
```
struct AlphaS // size of an AlphaS var is 2 + 8 = 10 bytes
                        char a, b; // contributes 2 bytes
                        double f; // contributes 8 bytes
                };
union BetaU // size of a BetaU var is size of largest field var (alphaVar) = 10
                        int i;
                        Alpha alphaVar;
                };
BetaU betUArr[25];
```

Layout of betaUArr array. a, b, f are variables of

<u>alphaVar</u>



```
struct AlphaS // size of an AlphaS var is 2 + 8 = 10 bytes
                          char a, b; // contributes 2 bytes
                          double f; // contributes 8 bytes
                  };
union BetaU // size of a BetaU var is size of largest field var (alphaVar) = 10
                          int i;
                          Alpha alphaVar;
                  };
BetaU betUArr[25];
Layout of betaUArr array. a, b, f are variables of
<u>alphaVar</u>
```



Aftab Hussain University of California, Irvine 6th November 2018