C Strings
Strings

- Strings versus Single characters
- Pointers versus Arrays
- Accessing Array of Strings with Pointers
Strings

- Strings are arrays of characters terminated by '\0' (null).
- The \0 occupies one char in the array of characters.
Character Strings

char c = 'W';
char *s = "George Bush"
char s2[] = "Hillary"

\begin{itemize}
\item char c = 'W';
\item char s = "George Bush"
\item char s2[] = "Hillary"
\end{itemize}
Character Strings

\[ s2[0] = 'B'; \]
\[ s2[4] = '\0'; \]

\[ \text{printf(“%s\n”, s2);} \]
An Array of Strings Example

/* An Example of an Array of Strings accessed using a string pointer */
int main ()
{
    int i, j;
    char let = 'A';
    char cray [3][10];
    char *cptr[3];
    for (j=0; j<3; j++)
        cptr[j] = &cray [j][0];
    for (j=0; j<3; j++)
    {
        let = let +1;
        for (i=0; i<9; i++)
            cray [j][i] = let + i;
        cray [j][9] = '\0';
    }
    for (j=0; j<3; j++)
        printf("j = %d, char = %s\n", j, cptr[j]);
    return 0;
}